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ABSTRACT

This report presents state-level data collected by mail from March-June 1994 via the School Health Program and Policies Study, which was designed to measure success in meeting school-specific items among the Healthy People 2000 national objectives as well as one of the National Education Goals. Five chapters on health education, health services, healthful school environment, physical education, and nutrition services each describe: the state organization, the coordination of the respective components at the state level with other agencies, programming, certification requirements for personnel at the district and school level, and response to four open ended questions (What would you like to do that you have been unable to do in your state? What has prevented you from doing these things? What has been the most helpful in improving your component of the coordinated school health program in your state? and What suggestions do you have for improving the state component?). Six articles explore state support for the five components of school health programs: "Introduction" (Diane D. Allensworth); "Health Education" (Mal Goldsmith and Sherri T. Reynolds); "School Health Services" (Elizabeth Gregory); "Healthful School Environment" (Marcia Rubin); "Physical Activity" (JoAnne Owens-Nauslar and Darrel Lang); and "School Food and Nutrition Services" (Kweethai Chin Neill). (Papers contain references.) (SM)

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SCHOOL HEALTH IN AMERICA

ED 471 467

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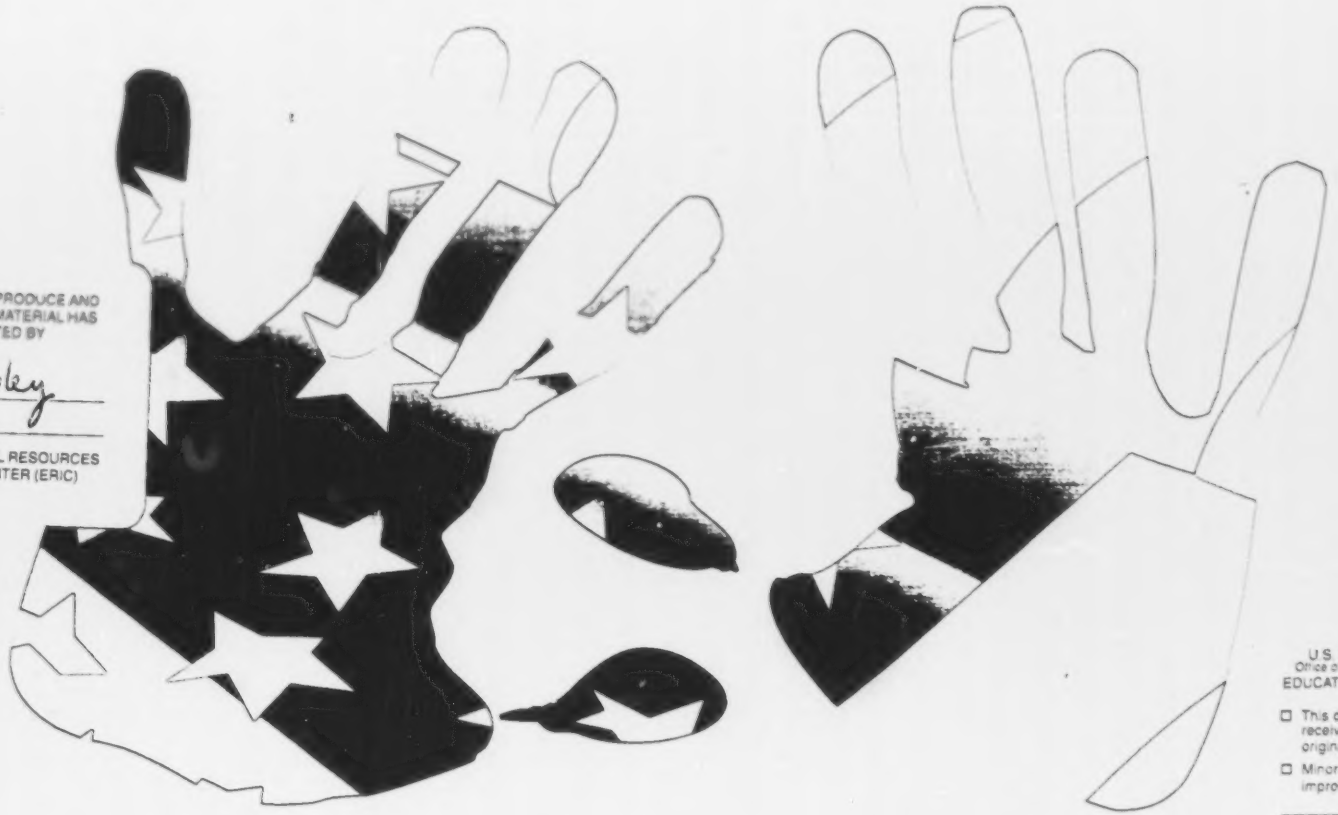

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An Assessment of State Policies to Protect and Improve the Health of Students

6 sixth edition

SP041267

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Introduction

Diane D. Allensworth, Ph.D., R.N.

Prevention efforts are cost-effective; the social and economic costs of inaction are intolerable. School failure, underachievement, and related health problems have serious repercussions for students, their families, and ultimately the economic health of the nation.[1]

Creating an Agenda for School Based Health Promotion, Harvard School of Public Health, 1992

Youth are one-third of the U.S. population and all of its future. Promoting the health and well-being of children benefits a society economically and socially.[2] Children represent an important natural resource for any society.[3]

Schools transmit culture to young people and prepare them to become productive, capable citizens. They are responsible for students' academic achievement and also for nurturing them. By providing comprehensive and integrated services for all young people, schools provide the nurture and protection that societies want for their children.[2]

Rationale for a Coordinated School Health Program

Academic achievement has become a prerequisite for earning a living wage in modern societies. The Hudson Institute's *Workforce 2000* report noted that unless basic work skills are improved substantially, societies will face increased joblessness among the least skilled, accompanied by a chronic shortage of workers with advanced skills.[4] Basic to the future of a nation is an educated populace that can maintain economic productivity.

An estimated one-third of the school-aged population (approximately 15 million children) in the U.S. is at risk of failing in school. Academic failure increases the likelihood that students will drop out of school prematurely. School dropouts are more likely to be poor, have costly medical problems as a result of their economic status, require job training and populate U.S. prisons.[5]

Concern about the effect of school dropouts on the nation's budget, workforce, and ability to compete globally in the future is reflected in the National Education Goal to attain at least a 90% high school graduation rate by the year 2000. A comprehensive program of interventions that deliver a range of human services to school-aged children and youth at risk of school failure can reduce school

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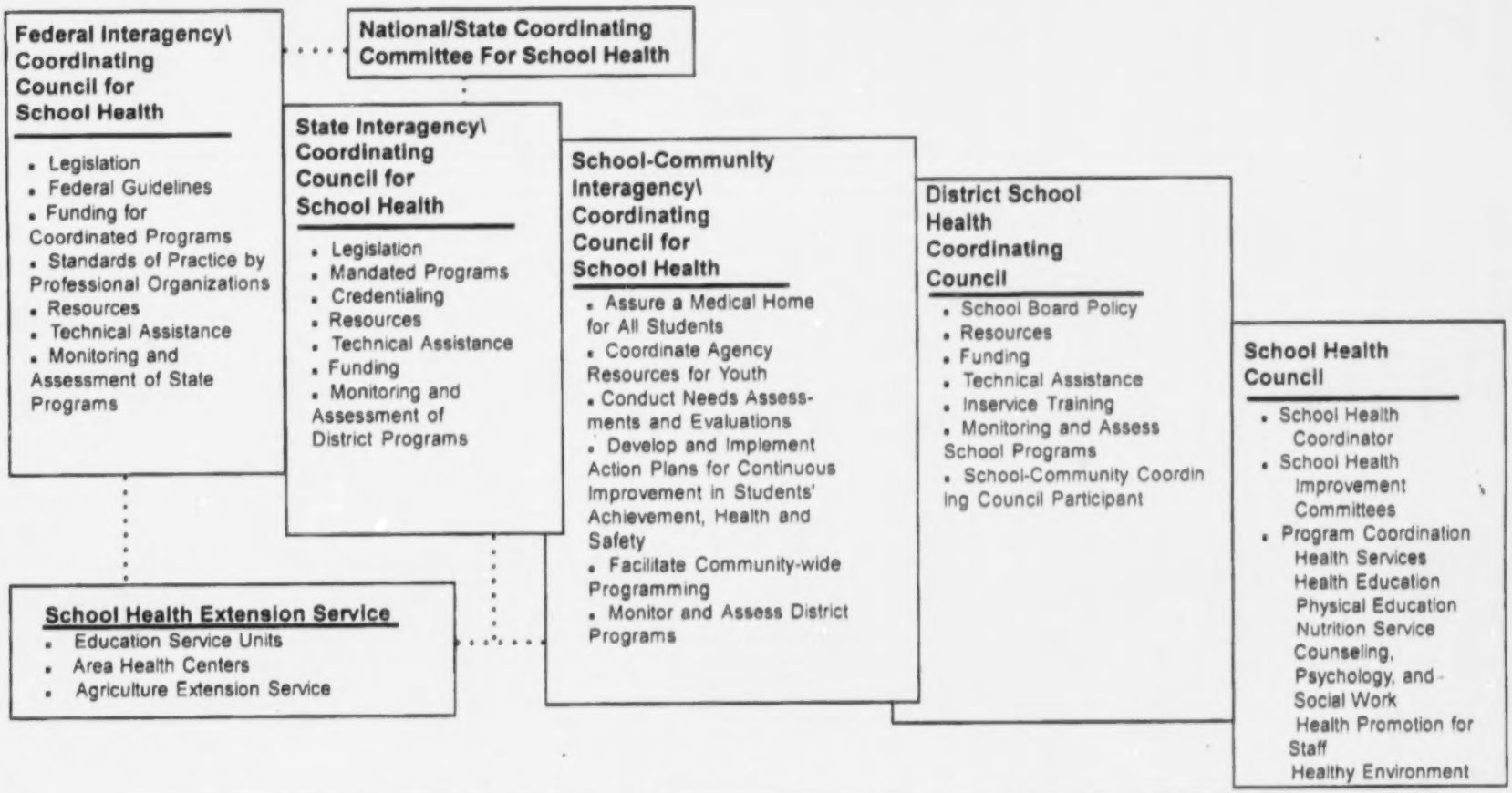
Figure 1.1
Federal, State and Local Accountability



The Vision

- Focus on priority student behaviors that interfere with learning and long-term well being
- Support and nurture students
- Use program planning models (data based decision making) to achieve goals
- Coordinate multiple programs
- Use multiple strategies
- Foster interdisciplinary and interagency collaboration
- Actively involve students
- Actively involve students' families
- Provide for continuous staff development

Adapted from: Allensworth D. Healthy Students 2000. Kent, OH: American School Health Association; 1993

failure and improve student health and academic achievement.

A quality school health program contributes not only to students' academic achievement and thus a productive workforce but also to the nation's health.[6] During childhood and adolescence, students represent a captive audience available for delivering many services and educational opportunities. Furthermore, behaviors that underlie many public health problems -- nutrition, exercise, smoking, alcohol, seat belts, sexual activity, and violence -- are rooted in childhood. Therefore, promoting a healthy lifestyle from preschool can contribute to a healthy society.

Components of a Coordinated School Health Program

To help students achieve their optimum health, schools need to offer a variety of health-related services and educational opportunities in a safe, healthy, and supportive environment. When schools have mechanisms for coordinating all such offerings, they have what is called a "coordinated school health program." In its report *School Health: An Investment in the Future*,[6] the Institute of Medicine defines such a program as: "an integrated set of planned, sequential, school-afiliated strategies, activities, and services designed to promote the optimal physical, emotional, social, and educational development of students. The program involves and is supportive of families and is determined by the local community based on community needs, resources, standards, and requirements. It is coordinated by a multidisciplinary team and accountable to the community for program quality and effectiveness."

A coordinated school health program consists of multiple components. In one commonly accepted model, those components include: a healthy school environment; health services; health education; physical education; school nutrition services; counseling, psychological, and social services; health promotion for staff; and the involvement of families and others in the community. Working groups of professionals with responsibilities in each of these components developed the following definitions.

Comprehensive School Health Education: Classroom instruction that addresses the physical, mental, emotional and social dimensions of health; develops health knowledge, attitudes, and skills; and is tailored to each age level. Such education motivates and assists students in maintaining and improving their health, preventing disease, and reducing health-related risk behaviors.[7]

Physical Education: Planned, sequential instruction that promotes lifelong physical activity. Such education develops students' basic movement skills, sports skills, and physical fitness and enhances their mental, social, and emotional abilities.[7]

School Health Services: Preventive services, education, emergency care, referral, and management of acute and chronic health conditions. Such servies promote the health of students, identify and prevent health problems and injuries, and ensure care for students.[7]

School Nutrition Services: Integration of nutritious, affordable, and appealing meals; nutrition education; and an environment that promotes healthy eating behaviors for all children. Such services maximize each child's education and health potential for a lifetime.[7]

School Counseling, Psychological, and Social Services: Activities that focus on cognitive, emotional, behavioral and social needs of individuals, groups, and families. Such services prevent and address problems, facilitate positive learning and healthy behavior, and enhance students' healthy development.[7]

Healthy School Environment: The physical, emotional, and social climate of the school. Such an environment provides a safe physical plant, as well as a healthy and supportive environment that fosters learning.[7]

School-site Health Promotion for Staff: Assessment, education, and fitness activities for school faculty and staff. Such activities maintain and improve the health and well-being of school staff, who serve as role models for students.[7]

Family and Community Involvement in Schools: Partnerships among schools, families, community groups, and individuals. Such partnerships share and maximize resources and expertise in addressing the healthy development of children, youth, and their families.[7]

Support for School Health Programs

Organizations and government agencies at the local, state, and national levels can provide support for a quality school health program. Such support includes a framework for policies, financial and human resources, organizational structures, and communication channels, all of which can help programs become established and grow.[8] The objectives of such support include:

- securing high level commitment to the program;
- assessing needs and capacity;
- defining outcome expectations;
- developing policies and regulations that assure quality programming
- identifying best practices;
- aligning programming with other health promotion efforts; and
- disseminating program information to policy makers and the public.

At the state level, such support assures effective program coordination and utilization of resources and provides technical assistance to schools. Coordination and collaboration among the staff in the state offices that support distinct components of the coordinated school health program, as well as collaboration among these state offices and other public and private agencies promoting the health and well being of children facilitates quality programming, according to the Institute of Medicine.[6] Effective support involves communication among local, state and federal agencies that is collegial, supportive, and part of a results-based accountability system (Figure 1.1).

School Health Policies and Programs Study (SHPPS)

To determine the status of school health programs nationwide the Centers for Disease Control and Prevention (CDC) conducted the School Health Policies and Programs Study (SHPPS) in 1994.[9] CDC collected data at the state, district, school, and classroom levels for five components of the school health program (health education, physical education, health services, food service, and policies related to a healthy school environment).

SHPPS asked the following questions:

- What is the current status of five of the components of the school health program at the state, district, school, and classroom levels nationwide?
- Who is responsible for delivering each component of the school health program? What collaboration occurs among the components?
- What is the relationship between state and district policies and school programs and services?
- What facilitates and prevents the delivery of quality school health programs?

This report focuses on the data collected on support for school health programs at the state level.

Questionnaire: Development of the 17 questionnaires that comprised the School Health Program and Policies Study (SHPPS) began in September 1992. The questionnaires were designed to measure success in meeting school-specific items among the 14 national health objectives in *Healthy People 2000*[10] and goal seven (Figure 1.2) of the National Education Goals[11] (Figure 1.3).

Figure 1.2
Relevant National Health Objectives[10]
to the School Health Policies
and Programs Study, 1994

1.8 Increase to at least 50% the proportion of children and adolescents in grades 1-12 who participate in daily school physical education.

1.9 Increase to at least 50% the proportion of school physical education class time that students spend being physically active, preferably engaged in lifetime physical activities.

2.17 Increase to at least 90% the proportion of school lunch and breakfast services and child care food services with menus that are consistent with the nutrition principles in the Dietary Guidelines for Americans.

2.19 Increase to at least 75% the proportion of the nation's schools that provide nutrition education from preschool through 12th grade, preferably as part of quality school health education.

3.10 Establish tobacco-free environments and include tobacco use prevention in the curricula of all elementary, middle, and secondary schools, preferably as part of quality school health education.

4.13 Provide to children in all school districts and private schools primary and secondary school educational programs on alcohol and other drugs (AOD), preferably as part of quality school health education.

5.8 Increase to at least 85% the proportion of people ages 10-18 who have discussed human sexuality, including values surrounding sexuality, with their parents and/or have received information through another parentally endorsed source, such as youth, school, or religious programs.

7.16 Increase to at least 50% the proportion of elementary and secondary schools that teach nonviolent conflict resolution skills, preferably as a part of quality school health education.

8.4 Increase to at least 75% the proportion of the nation's elementary and secondary schools that provide planned and sequential K-12 quality school health education.

9.18 Provide academic instruction on injury prevention and control, preferably as part of quality school health education, in at least 50% of public school systems (K-12).

13.12 Increase to at least 90% the proportion of all children entering school programs for the first time who have received an oral health screening, referral, and follow-up for necessary diagnostic, preventive, and treatment services.

18.10 Increase to at least 95% the proportion of schools that have age-appropriate HIV education curricula for students in grades 4-12, preferably as part of quality school health education.

19.12 Include instruction in sexually transmitted disease transmission prevention in the curricula of all middle and secondary schools, preferably as part of quality school health education.

20.11 Increase immunization levels as follows: Basic immunization series among children in licensed child care facilities and kindergarten through post-secondary education institutions: at least 95%.

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An expert panel for each of the five components in the study provided advice about the contents of the questionnaires. The expert panel and an expanded group of nationally recognized reviewers including representatives of relevant national professional organizations, representatives of state and local education agencies, federal officials, university faculty and school-level administrative, teaching and health services staff refined the questionnaires.

Questionnaires underwent multiple rounds of pilot testing and revisions. State-level questionnaires contained items on organizational structure, program requirements, relevant policies, professional preparation, and collaboration and coordination with other components.

Data Collection: State-level data was collected by mail with telephone follow-up during March through June in 1994. Initially, data collectors called the superintendent of instruction's office to identify an individual who could serve as a contact for SHPPS. The contact person identified individuals in the state who should complete the questionnaire for each component. The state director of the respective components from all 50 states and the District of Columbia responded. States' responses are reported as a percentage of the 51 states, even when all states did not respond to every question.

The only aspects of the school health environment that SHPPS assessed were the policies related to tobacco use, alcohol and other drug use, violence, and HIV infection. To provide some information on the physical environment, this publication also includes data from a General Accounting Office report on the physical condition of school facilities.

The SHPPS relied on self reported data, therefore, the analyses in this document reflect the knowledge and accuracy of the respondents. The SHPPS made no independent verification of the data provided. Using 51 as the denominator for reporting percentages given, when all respondents did not answer a question, has

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Figure 1.3
National Education Goals

Goal 1: Ready to Learn By the year 2000, all children in America will start school ready to learn.

Goal 2: School Completion By the year 2000, the high school graduation rate will increase to at least 90 percent.

Goal 3: Student Achievement and Citizenship By the year 2000, American students will leave grades four, eight, and 12 having demonstrated competency over challenging subject matter including English, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography; and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our Nation's modern economy.

Goal 5: Mathematics and Science By the year 2000, U.S. students will be first in the world in mathematics and science achievement.

Goal 6: Adult Literacy and Lifelong Learning By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.

Goal 7: Safe, Disciplined, and Drug-Free Schools By the year 2000, every school will be free of drugs, violence, and the unauthorized presence of firearms and alcohol and will offer a disciplined environment conducive to learning.

Goal 8: Parental Participation By the year 2000, every school will promote partnerships that will increase parental involvement and participation in promoting the emotional and academic growth of children.

resulted in underreporting the actual percentage of states that conduct some activity. The SHPPS collected data in 1994. Thus, this report does not reflect policy and program changes that have occurred since 1994.

Organization of the Report

The chapters on health education, health services, physical education, and nutrition services each describe: a) the state organization; b) the coordination of the respective components at the state level with other agencies; c) programming; d) certification requirements for personnel at the district and school level; and e) response to four open-ended questions:

- What would you like to do that you have been unable to do in your state?
- What has prevented you from doing these things you just described?
- What has been most helpful in improving your component of the coordinated school health program in your state?
- What suggestions or recommendations do you have to improve the component in your state?

The chapter on school health policies is structured differently because the SHPPS questionnaire for this component focused only on policy.

General Findings

The five articles in this document explore state support for five components of a school health program: health education, health services, physical education, nutrition services, and healthy school environment.

Many states have appointed state directors for each component. There is evidence of much collaboration between some of the respective components. The state directors of the respective components provide substantial staff development training and materials.

While there is room for improvement, many states have established a solid foundation for supporting many components of a school health program.

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Health Education

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Health Education in the school setting is especially important for helping children and youth develop the increasingly complex knowledge and skills they will need to avoid health risks and maintain good health throughout life. Quality school health education that is planned and sequential for students in kindergarten through 12th grade, and taught by educators trained to teach the subject, has been shown to be effective in preventing risk behaviors.[1]

-- Healthy People 2000

Professionals from the fields of education, health, and social services, along with increasing numbers of parents and politicians have focused on the need for a prevention agenda that will reduce the 50% of premature illness and death related to an unhealthy lifestyle.[2] "Schools offer the most systematic and efficient means to improve the health of youth and enable young people to avoid health risks. Planned and sequential quality school health education programs help young people at each appropriate grade to develop the increasingly complex knowledge and skills they will need to avoid important health risks, and to maintain their own health, the health of the families for which they will become responsible, and the health of the communities in which they will reside."[1] *Healthy People 2000* identified nine health instruction objectives for schools. Eight of the objectives focused on specific instructional topics that students should receive as part of quality school health education: nutrition, tobacco-use prevention, alcohol and other drug abuse prevention, human sexuality, conflict resolution skills, injury prevention and control, and HIV and other STD prevention. The ninth objective called for planned, sequential health instruction in kindergarten through 12th grade in 75% of the nation's elementary and secondary schools.[1]

To achieve maximum success, quality school health education must function

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within the framework of a broader coordinated school health program and include:

- a documented, planned, and sequential program of health instruction;
- a curriculum that addresses and integrates education about a range of categorical health problems and issues;
- activities that help young people develop the skills they will need to avoid behaviors that result in unintentional and intentional injuries, alcohol and other drug use, tobacco use, sexual behaviors that result in human immunodeficiency virus (HIV) infection and other sexually transmitted diseases (STD) and unintended pregnancies, imprudent dietary patterns, and inadequate physical activity;
- instruction provided for a prescribed amount of time at each grade level;
- management and coordination in each school by an education professional trained to implement the program;
- instruction from teachers who have been trained to teach the subject;
- involvement of parents, health professionals, and other concerned community members; and
- periodic evaluation, updating, and improvement.

Methodology

This chapter reviews the status of health education at the state level as well as state

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Figure 1.1
State Mandate and Grade Level Requirements for Health Education

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Legal Basis for Program	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Required at the Elementary Level	•		•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•		•	
Required at the Middle School Level	•		•	•			•	•	•	•	•	•	•	•	•	•		•		•	•	•		•		•	
Required at the High School Level	•			•			•	•	•	•	•	•	•	•	•	•		•	•	•	•	•		•	•	•	

Figure 1.1
State Mandate and Grade Level Requirements for Health Education

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Legal Basis for Program	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Required at the Elementary Level	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	
Required at the Middle School Level	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•		•	•	•	•	•	•	
Required at the High School Level	•	•	•	•	•	•	•	•	•	•		•	•	•	•		•	•	•	•	•	•	•	•	

mandates for health education at the local level. The data comes from the School Health Policies and Programs Study (SHPPS) conducted by the Centers for Disease Control and Prevention (see "Introduction").

State Organization

State-level support for health education includes legislative mandates as well as state education agency and health department regulations, guidance documents, other resources, and consultation. Forty-six states (90%) require or recommend that schools provide health education (Figure 1.1). The legal basis for requiring health education was state legislative action in 33 states (65%), state education policy in 28 states (55%), state health department policy in one state (2%), and other regulations in four states (8%). Some states have more than one legal basis for their requirement. Three fewer states mandated health education in a similar survey in 1989.[3] In the 1994 SHPPS, 17 states (33%) reported that their state requirements for health education were outcome-based, ie, the specified outcomes that students must achieve.

At the elementary school level, 45 states (88%) required that schools offer health education. Although 34 states (67%) did not specify how elementary schools must offer health education. Eighteen 18 states (35%) told schools to include health lessons as part of the elementary. Five states (10%) required health as a separate subject at the elementary level. One state (2%) required schools to offer health education in a course equally split with physical education.

At the middle/junior high school level, 42 states (82%) required that schools offer health education. Twenty-four states (47%) did not specify how middle/junior high schools must offer health education. Fourteen states (28%) required that middle/junior high schools offer health as a separate course. In eight states (16%), middle/junior high schools offer health as a split course with another subject (usually physical education), while six states (12%) taught it as part of other required courses.

Forty-three states (84%) required schools to offer health education at the senior high school level. In 28 of these states (55%), high schools must offer health as a separate course. Nine states (18%) required a course that provided health in a course equally split with physical education. Four states (8%) included required health lessons as part of other required subjects at the high school level. Nine states (18%) did not specify how high schools must offer required health education.

Having a state office responsible for health education initiatives is basic to building an infrastructure for health education programming statewide. In 1994, 50 states (98%) had a person responsible for directing or coordinating school health education, which is an increase of six states since 1989.[3] The majority of state directors (49 states, 96%) were responsible for both elementary and secondary levels. Directors for health education in 48 states (94%) had other administrative responsibilities. These included administering:

- federally funded HIV education (32 states, 63%);
- physical education (24 states, 47%);
- federally-funded Drug-Free Schools (DFS) (14 states, 28%);
- school health services (11 states, 22%);
- other curricula areas (seven states, 14%);
- federally-funded Nutrition Education and Training (five states, 10%);
- driver's education (four states, 8%); and
- other responsibilities (15 states, 29%).

State Coordination

Coordination at the state level can strengthen support state-level organizations and agencies provide for schools' health education. Administratively, state education agencies have located the health education coordination with:

- federally funded HIV education (44 states, 86%);
- physical education (35 states, 69%);
- federally-funded Drug-Free Schools (30 states, 59%);

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- school health services (19 states, 37%);
- federally-funded Nutrition Education and Training (15 states, 29%);
- driver's education (14 states, 28%); and
- other programs 18 (states, 35%).

According to Kolbe[4] at the Centers for Disease Control and Prevention, government agencies at the local, state, or national level need to work as partners for effective implementation of school health programs. In the two years prior to the SHHPPS, state education agency staff participated in joint programs with staff from:

- school health services in 37 states, (73%);
- school food service in 35 states, (68%);
- physical education in 32 states,

Figure 1.2a
Required Topics for Health Instruction by Grade Level

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Alcohol and Other Drugs	•			•			•	•	•	•	•	MH	•	•	•	•				•	•				H	•	
Community Health	•			•				•	MH	•	•	•				•				•	•				H	•	
Conflict Resolution and Violence Prevention									•					•		•				•	•				H		
Consumer Health	•			•				•	MH	•	•	•		•		•				•	•				H	•	
CPR	H							MH	•	H	H			•		•				H							
Death and Dying									MH							•				•	•						

Figure 1.2a
Required Topics for Health Instruction by Grade Level

	Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Alcohol and Other Drugs			•	•	MH	•	•	MH		•		•	•	•	•		•	EH	•	•	•	•	•	•		
Community Health			•	MH		•	•	MH						•	•		•	EH		•			•			
Conflict Resolution and Violence Prevention			•			•		MH		E				•	•		•	EH					•			
Consumer Health			•			•	•	•							•		•	EH	H	•	•		•			
CPR										•				H			H	H	MH	H			•			
Death and Dying																	H	H	•	H			•			

E - Elementary, M - Middle, H - High, • - All 3 levels

(63%); and

- school counseling/psychology in 22 states, (43%).

In 40 states (78%) the health education statt conducted joint activities with community agencies and organizations such as the National Parent-Teacher Association, American Red Cross, American Cancer Society, Maternal and Child Health Coalition, public health agencies, justice department, the states' school board association, the Dairy Council, American Lung Association, American Heart Association, and several other non-profit organizations, state agencies, and professional organizations.

Coordination and collaboration occurred among the state health education staff and state level coalitions or associations promoting health education in 46 states (90%). In 36 states (71%), these coalitions were affiliated with national professional organizations including the American Association for Physical Education, Recreation and Dance; American School Health Association, American Association for the Health Education; American Cancer Society; and National School Health Education Coalition.

Health Education Programs

Curricular frameworks: State education agencies can help schools enhance quality and effectiveness of health education by providing specific curricula, guidelines and frameworks, controlling class sizes, and systematically evaluating schools' programs. In SHPPS, most states (47 states, 92%) reported providing health curricula, guidelines, or frameworks for at least one grade level.

Forty-two states (82%) provided such guidance at the elementary school level, and 43 states (84%) at the middle/junior high school and senior high school levels

Forty-four states (86%) included goals, objectives, and outcomes. In their written curricula, guidelines, or frameworks, 26 states (51%) included subject matter content, 24 (47%) provided resources, 24 (47%) included scope and sequence chart, 19 (37%) suggested learning activities, 9 (18%) provided lesson plans, 9 (18%) specified student assessment plans, and 9 (18%) suggested curriculum evaluation plans.

The goals, objectives, or outcomes that states included in their written curricula, guidelines, or frameworks addressed knowledge about health topics at the elementary level in 41 states (80%), at the middle/junior high school level in 42 states (82%), and at the senior high school level in 43 states (84%). Fewer states included goals, objectives, or outcomes that focused on positive attitudes toward health behaviors: 33 states (65%) at the elementary school level, 35 states (69%) at the middle/junior high school level, and 36 states (71%) at the senior high school level. Even fewer states included goals, objectives, or outcomes that specified participation in healthy behaviors: 31 states (61%) at the elementary school level, 34 (67%) at the middle/junior high school level, and 35 states (69%) at the the senior high school level. Thirty-five states (68%) included goals, objectives, or outcomes that addressed skills to practice health behaviors at the elementary school level, 37 states (73%) at the middle/junior high school level, and 39 states (76%) at the senior high school level.

Class size: Fourteen states (27%) set a maximum number of students that schools may schedule into a required health education class. The maximum class size ranged from 25 to 150 students and averaged 41 students in those states that set a limit.

Compliance with curricular framework: Seventeen states (36%) required that schools follow the states' written curricula, guidelines, or frameworks for health education. Twenty-six states (55%) recommended that schools follow the state's curricula, guidelines, or frameworks for health education and four states (9%) neither required nor recommended compliance. In order to monitor compliance with curricula guidelines or frameworks, 31 states (61%) employed one or more of the following:

- periodic on-site monitoring by the state department (20 states, 39%);
- district submissions of periodic compliance reports (12 states, 24%);

- school submissions of periodic compliance reports (eight states, 16%); and
- other monitoring strategies (seven states, 14%).

Evaluation of health education program: During the two years prior to the SHPPS, 26 states (51%) conducted formal evaluations of health education at the district or school level. In 1989, 17 states (33%) had conducted such evaluations.[3]

The evaluations reported in SHPPS assessed:

- the status of health education policies in 12 states (24%);
- the quality of written goals, objectives, and outcomes for health education in

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Figure 1.2b
Required Topics for Health Instruction by Grade Level

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Dental and Oral Health	•			•				EM	•	•	E	•				•				•	•			E	H	•	
Dietary Behaviors/Nutrition	•			•				•	•	•	•	•		•	H	•				•	•			E	H	•	
Disease Prevention and Control	•			•				•	•	•	•	•		•	H	•				•	•				H	•	
Emotional and Mental Health	•			•				•	•	•	•	•		•	H	•				•	•			E	H	•	
Environmental Health	•			•				•	•	•	•	•		•	H	•				•	•				H	•	
First Aid				•				•	•	H	•	•		•		•				•	•				H	•	

Figure 1.2b
Required Topics for Health Instruction by Grade Level

	Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Dental and Oral Health			•	•								•	•	E			EH	E	•			•			
Dietary Behaviors/Nutrition			•	•		•	•	MH		•			•	•	•		•	EH	•	•	•		•	•		
Disease Prevention and Control			•	EM		•	•	MH	•	•			•	•	•		•	EH	•	•	•		•	•		
Emotional and Mental Health			•	•		•	•	•						•	•		•	EH	•	•	•		•	•		
Environmental Health			•			•	•	M						•	•		•	H	•	•	•		•			
First Aid			•	EM				•		•			•	MH			•	EH	MH	•	•		•			

E - Elementary; M - Middle; H - High; • - All 3 levels

8 states (16%);

- the implementation of health education curricula, guidelines, or frameworks in 13 states (26%);
- the quality of staff development offerings for health education in 14 states (28%); and
- the qualifications of health education teachers in 11 states (22%).

Instructional time: The amount of instructional time devoted to teaching health influences student learning and skill development. The School Health Education Evaluation[5] revealed that 50 hours of instruction were needed to change health knowledge, attitudes, and behaviors. In the SHPPS, 35 states (69%) specified some time guidelines for health instruction. At the elementary school level, only eight states (16%) specified specific time requirements. All eight mandated over 30 hours per year, but only three mandated 50 hours. In two of those states the mandate combined physical education with health and included no specific guidelines on the division of the hours.

At the middle/junior high school level, 20 states (39%) mandated specific time requirements. Excluding those whose mandate combined health education with physical education, 12 of these states (67%) required the equivalent of a semester of health education schools could often provide the course at either the seventh or eighth grades, or through a combination of both grades.

At the senior high school level, 32 states (63%) had specific time requirements for health education. Nineteen states (37%) required a semester at some grade during grades 9-12. Four states (8%) required two semesters during the high school years. Most states did not require a health class beyond the ninth or 10th grade. No states followed the professional guidelines calling for a separate course at every grade at the high school level.[7,8]

Commercial curricula: Because many schools use commercially available health education curricula, 15 state education agencies (29%) provide guidance to schools in such curricula by approving or recommending specific curriculum for local use. The recommended or approved health curriculum:

- Teenage Health Teaching Modules (12 states, 24%);
- Know Your Body (12 states, 24%);
- Reducing the Risk (11 states, 22%);
- Growing Healthy (10 states, 20%);
- Here's Looking at You 2000 (seven states, 14%); and
- The Great Body Shop (six states, 12%).

Approval or recommendation does not necessarily imply utilization, and often does preclude selection of other commercial curricula.

State-required academic testing: To improve schools' accountability for student performance, states are "working to devise systems of rewards and punishments for schools that will be linked to the accomplishment of specified outcomes."[9] School improvement efforts including outcome-based education have often resulted in states expanding their assessment activities.

In the SHPPS, 41 states (80%) required academic student testing. Thirty-eight states (75%) tested at the elementary school level, 36 states (71%) at the middle/junior high school, and 37 states (73%) at the senior high school level. Only 10 states (20%), required testing, however, included health education topics in their states. Of those six states (12%) included health topics at the elementary school level, eight states (16%) at the middle/junior high school level, and seven states (14%) at the senior high school level.

Curriculum requirements: Several national documents have suggested that content constitutes comprehensive health education. Ten content areas included personal health, family health, community health, environmental health, growth and development, mental and emotional health,

injury prevention and safety, nutrition, disease prevention, and control, and prevention of substance abuse.[10-12] The Centers for Disease Control and Prevention identified six behaviors responsible for most serious illness and premature deaths in the United States -- tobacco use, poor eating habits, abuse of alcohol and other drugs, behaviors that result in intentional or unintentional injuries, physical inactivity, and sexual behaviors that result in HIV infection or other STDs, or unintended pregnancies.[13] In 1995, the Joint Committee on National Health Education Standards[14] published national health education standards. The Standards state that students will:

- comprehend concepts related to health promotion and disease prevention;

Figure 1.2c
Required Topics for Health Instruction by Grade Level

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Growth and Development	•			•				•	•	•	•	•		•	H	•				•	•		E	H	•	
HIV Prevention	•		•	•				•	MH	MH	MH	•	•	MH	•	•	•		H	•	•			H	•	
Human Sexuality	MH			•				•	•	•	•	•				•	MH			•	•				•	
Injury Prevention and Safety	MH			•				•	•	•	•	•		•	H	•			H	•	•			H	•	
Personal Health	MH			•				•	•	•	•	•		•	H	•		•	H	•	•		E	H	•	
Physical Activity and Fitness	MH							•	•	•	•	•	•	•	EM	•			H	•	•			H	•	

Figure 1.2c
Required Topics for Health Instruction by Grade Level

	Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Growth and Development			•	MH		•	•	EM						•	•		•	EH	•	•	•		•			
HIV Prevention			•	•	•	•	•	MH	•			•	•	•	MH	•	•	H	•	•		•	•	•		
Human Sexuality			•	MH	•	•		MH						•	MH		H	H	MH	•			•			
Injury Prevention and Safety			•	•		•	•	MH		•			•	•	•		•		•	•			•			
Personal Health			•	EM		•	•	•					•	•	•		•		•	•			•			
Physical Activity and Fitness			•	•	•	•	•	•		•			•	•	•		•		•	•		•	•			

E - Elementary; M - Middle; H - High; • - All 3 levels

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- demonstrate the ability to access valid health information and health-promoting products and services;
- demonstrate the ability to practice health-enhancing behaviors and reduce health risks;
- analyze the influence of culture, media, technology, and other factors on health;
- demonstrate the ability to use interpersonal communication skills to enhance health;
- demonstrate the ability to use goal-setting and decision-making skills to enhance health; and
- demonstrate the ability to advocate for personal, family, and community health.

At the state level, the SHPPS data revealed that many states specifically require specific health topics (Figure 1.2a-d).

tion (15 states, 21%).

Healthy Children 2000[9] identified over 170 national health and disease prevention objectives related to child and adolescent health. Eight of those specifically address health education. Objective 18.10 calls for 95% of schools to have age-appropriate HIV curricula. According to the SHPPS data, as of 1994 only 37 states (73%) mandated such instruction. Objective 19.12 called for

Figure 1.2d
Required Topics for Health Instruction by Grade Level

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Pregnancy Prevention							MH	MH	MH	MH	•		MH						MH	MH				H		
STD Prevention	MH			MH			MH	•	MH	MH	•		MH		•	•			MH	•				H	•	
Suicide Prevention							•	MH	H	•					•				•	•				H		
Tobacco Use Prevention	•			•			•	•	•	•	•			•	•			H	•	•	•			H	•	

Figure 1.2d
Required Topics for Health Instruction by Grade Level

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Pregnancy Prevention			•			•		MH						MH	H			H		MH	•			MH			
STD Prevention			•	•		•		MH		•		•	•	•	MH			MH		MH	•			•	•		
Suicide Prevention			•			•								MH				H		MH				•			
Tobacco Use Prevention		•	•		M	•	•	MH		•		•	•	•	•			•		•	•		E	•	•		

E - Elementary, M - Middle, H - High, • - All 3 levels

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instruction in the prevention of sexually transmitted diseases as part of the curricula of all middle and secondary schools; 28 states (55%) mandated this instruction. Objective 5.8 states that 85% of students ages 10-18 will have discussed human sexuality with parents and/or through youth school or religious programs. Twenty-three states (45%) have mandated such instruction. Objective 4.13 states that all children should receive instruction on alcohol and other drugs. Thirty-six states (71%) mandated such instruction. Objective 3.10 states that tobacco-use prevention should be a part of the curriculum in all elementary, middle, and secondary schools. Thirty-three states (65%) mandated such instruction. Objective 2.19 states that 75% of the nation's schools should provide nutrition education. Thirty-one states (61%) mandated such instruction. Objective 7.16 states that 50% of all schools should teach nonviolent conflict resolution skills. Fifteen states (29%) mandated this instruction. Objective 9.18 calls for at least 50% of all schools to include instruction about injury prevention and control as part of health education. Twenty-eight states (55%) required such instruction. The target of all of these year 2000 objectives are schools or students, not the state level. Failure of states to mandate instruction on specific topics does not preclude inclusion of these topics at the school level. States' requirements for specific topics could, however, contribute to achieving the health objectives for the nation.

Advisory councils: Comprehensive school health education, fully implemented, involves both school and community members.[4] One way to involve community

Figure 1.3
Available State Certification for Health Education by Grade Level

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Missouri
Separate Certificate for Elementary Level														•	•		•								
Separate Certificate for Middle School Level				•			•				•	•		•	•	•	•					•	•		
Separate Certificate for Secondary Level	•			•			•				•	•	•	•	•	•	•					•	•	•	

Figure 1.3
Available State Certification for Health Education by Grade Level

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Separate Certificate for Elementary Level			•			•								•	•				•	•			•	•		
Separate Certificate for Middle School Level		•	•			•				•		•		•		•	•		•	•			•	•		
Separate Certificate for Secondary Level		•	•		•	•				•		•		•	•		•	•	•	•		•	•	•		

E - Elementary; M - Middle; H - High; • - All 3 levels

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members is through a health council. State support can encourage schools to institute such coucils and can help them function effectively. SHPPS data revealed that 33 states (65%) provided training and materials for establishing district or school-wide health advisory councils. Thirty states offered materials, and 24 states (47%) provided inservice training.

Personnel

Inadequate teacher training is an obstacle to the implementation of quality school health education.[15] A direct way to strengthen teacher credentials is through certification by state certifying agencies. To be certified, health education teachers in 36 states (59%) must have at least a baccalaureate degree in health education or a related major plus a specified number of education credits. Thirteen states (26%) required that teachers pass a state competency exam, and 10 states (20%) had other criteria for certification in health education.

States offered two major types of certification -- a separate health education certificate and a combined health education and physical education certificate. Forty-nine states (96%) offered separate health education certification, 26 (51%) states offered combined health and physical education certifications. In addition, many states offer separate certification to teach health at specific grade levels (Figure 1.3). Three states (6%) required separate health education certification for all elementary teachers, and 35 states (69%) required it for who teach health education at the secondary level.

To enhance teacher performance, 27 states (53%) require continuing education for teacher recertification. Though requirements vary by state, college coursework or some equivalent continuing education is a growing expectation.[16] CEU requirements to retain certification or endorsement range from two to 180 hours every one to seven years. The most frequent requirement was six hours (35%). Some states allowed teachers up to five years to obtain the six CEUs. Only seven states (14%) required that these CEUs be related directly to health education.

In addition to helping teachers meet certification requirements, inservice training can enhance the effectiveness of lack of professional preparation of teachers assigned to teach health education and other teachers who need to stay current in the field.[17] During the two years prior to the SHPPS, 50 states offered inservice training and materials (Figure 1.4).

The top 10 topics on which states offered training were:

- HIV prevention (50 states, 98%);
- alcohol and other drug use prevention (49 states, 96%);
- sexually transmitted disease (43 states, 84%);
- tobacco use prevention (42 states, 82%);
- conflict resolution (41 states, 80%);
- human sexuality (40 states, 78%);
- disease prevention and control (39 states, 77%);
- dietary behavior and nutrition (38 states, 75%);
- physical activity and fitness (35 states, 69%); and
- pregnancy prevention (35 states, 69%).

Less than 25 states required community health, consumer health, CPR, death and dying, oral health, emotional and mental health, environmental health, first aid, growth and development, injury prevention and control, personal health, and suicide prevention. During that two-year period, the number of teachers trained ranged from 300 to 1,842 per state.

In addition to inservice training, state education agencies offer health teaching materials. The materials offered generally addressed the same health topics as the inservice programming offered by the state education agency (Figure 1.4).

Improving School Health Education

The SHPPS state-level instrument included several open-ended questions pertaining to responders' ability to move

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health education forward in their states, The following reflects their responses.

What would you like to do in health education in your state that you have not been able to do?

- improve teacher credentials at both preservice and inservice level.
- implement or expand comprehensive school health education.
- expand assessment activities for health at the state level.
- improve advocacy and networking at the state level to promote school health.

What has prevented you from accomplishing the above?

- poor support at the state and federal level including: inadequate regulations or requirements, poor structuring within agencies, and categorical funding.
- lack of funding/resources.
- having other priorities, responsibilities, time commitments.
- actions of extremist/opposition groups.

What has been most helpful to you in improving health education in your state?

- national/federal support in the form of dollars and training: i.e., CDC, drug-free schools, ACS initiative to promote health education.
- state improvement efforts, school improvement efforts, school improvement initiatives, curricula guidelines and training, mandates.
- collaborative efforts: intra- and interagency, and with school personnel.
- support of professional organizations.

Figure 1.4
Health Education Inservice Training and Materials Offered by State Education Agencies from 1992 - 1994

Topic	Training n (%)	Materials n (%)
HIV Prevention	50 (98%)	50 (98%)
Alcohol and other Drug Use Prevention	49 (98%)	50 (98%)
Sexually Transmitted Disease (STD) Prevention	43 (84%)	44 (86%)
Tobacco Use Prevention	42 (82%)	45 (88%)
Conflict Resolution / Violence Prevention	41 (80%)	36 (71%)
Human Sexuality	40 (78%)	40 (78%)
Disease Prevention and Control	39 (77%)	40 (78%)
Dietary Behaviors and Nutrition	38 (75%)	36 (71%)
Physical Activity and Fitness	35 (69%)	36 (71%)
Pregnancy Prevention	35 (69%)	38 (75%)

What suggestions or recommendations do you have to improve health education in your state?

- more support at higher levels of state and national government for CSHE.
- improved teacher training.
- better coordination within state education agencies, including the areas of HIV, drug free schools, and health education.

Summary

According to respondents in the School Health Policies and Programs Study at the state level, as of 1994, 46 states required or recommended that schools offer health education. The most frequently mandated topics in the health curriculum were HIV prevention, alcohol and other drug use prevention, injury prevention, pregnancy prevention, and violence prevention. Few states separately require a separate health education course at elementary or middle school levels. Almost three-fourths of the states specified time guidelines for health instruction, but less than five met the minimal time guidelines for meaningful instruction suggested by federal agencies and professional associations.

Most states coordinated health education activities with some other components of a coordinated school health program. Most also had written curricula, guidelines, or frameworks for health education. Between 1992 and 1994, 10 states conducted statewide evaluations of some aspects of their health education programming. Most states offered certification, most at the secondary level. Over half the states provided materials or training to assist districts in establishing or strengthening school health advisory councils. The most frequent health education inservice training topics that state education agencies provided were HIV prevention, alcohol and other drug use prevention, conflict resolution/violence prevention, human sexuality, and STD prevention.

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School Health Services

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Learning does not take place in isolation. Societies therefore must ensure that all learners receive nutrition, health care, and general physical and emotional support they need in order to participate actively in and benefit from their environment.[1]

School health services encompass preventive services such as immunizations and screenings, education and health counseling, emergency care, and referral and management of acute and chronic health conditions of students and school employees.[2,3] Such services promote the health of students, identify and prevent health problems, and injuries and ensure care for students' health needs.[3]

The extent of school health services that any local school offers depends on state guidelines, local district options, services available in the community, traditions, and financial constraints. The continuum of care ranges from basic screenings and first aid to comprehensive primary health care provided on site.

A working group of representatives of national organizations representing health service providers and education recommended that at a minimum every school should provide:

- screenings, diagnostics, treatment, and health counseling services;
- referrals and linkages to other community providers; and
- health promotion and injury and disease prevention education.[4]

Registered nurses usually provide these services, sometimes with assistance from health aides.

Many schools provide expanded services that include additional services provided directly or contracted from outside agencies. Depending on community resources and needs of students, expanded

services might include mental health counseling, student assistance or employee assistance programs, health services for students with special needs, dental care, or athletic training for sports teams.

Establishing primary health care clinics in or near public schools grew out of a need to provide care to students who lacked medical insurance or ready access to medical care. Health departments, hospitals, or other medical care facilities operate these school-based or school-linked clinics. They provide preventive and primary care, mental health services, health education, and social support services for underserved students.[5] In some places, the school-based clinic has evolved from having a focus on primary health care to a full-service agency providing "one-stop shopping" for all health and social services, including primary health care, mental health counseling, social services, and vocational counseling.[6]

Methodology

State mandates for health services are reviewed in this chapter. The review is based on data collected as part of the School Health Policies and Programs Study (SHPPS) conducted by the Centers for Disease Control and Prevention. This was the first study to assess school health policies and programs for multiple components of the school health program at the state, district, and local level. This review focuses only on data collected on the state program for health services.

Development of the questionnaire for the state director of school health services began in September 1992. An expert panel was assembled in January 1993 to provide feedback about the contents of the questionnaire. The expert panel and an expanded group of nationally recognized reviewers refined the proposed questionnaires. The state questionnaire contained items on organizational structure, program requirements, relevant policies, professional preparation, and collaboration and coordination with other components.

State-level data collection was accomplished by mail with telephone follow-up during March through June 1994. The superintendent of instruction's office was contacted by telephone prior to data collection and asked to identify an individual who could serve as contact for the SHPPS. The contact person identified the individual in their state who should complete the survey of the health services component. All 50 states and the District of Columbia responded. However, all states did not respond to each question. For purposes of reporting, the District of Columbia was considered a state. Percentages of states participating in various activities are reported as a percentage of the 51 potential states that could report.

State Organization

States support school health services through legislative mandates or educational codes. According to data collected through the School Health Policies and Programs Study (SHPPS)[7] in 1994, 27 states (53%) had state educational codes or legislation that required schools to offer nursing services (Figure 2.1). In 1989, a similar survey[8] reported that 33 states had either legislation or an educational code requiring health services in public schools.

Currently, 37 states (76%) have a person who has responsibility for nursing services at the state level. The agency employing this state coordinator was:

- state department of education in 20 states (39%);
- state department of health in 14 states (28%); and
- both the state department of health and education in three states (6%).

In 30 states (59%), the only responsibilities of the state director of school nursing services was for school health services. In the other 21 states (41%), the state directors's responsibilities included:

- comprehensive school health (5 states, 12%);
- primary care programs including EPSDT (6 states, 12%);
- health education (5 states, 10%);
- federally funded HIV education programs (4 states, 7%);

- federally funded Drug Free Schools Programs (2 states, 4%);
- pregnant/parenting programs (2 states, 4%); and
- physical education (1 state, 2%).

Twenty-nine states provide funding for at least one school-based or school-linked clinics. A 1993 survey[8] by the Robert Wood Johnson Foundation found 22 states had guidelines for school-based clinics and another nine states had guidelines in development.

State Coordination

Since several agencies in most states had an interest in the health of school-aged children, collaboration between state agencies can strengthen a state's support for school nursing and other health services.

In 39 states (76%) the lead state agency for coordinating school health services, most often the department of education, worked with other state agencies to administer school nursing services. These collabo-

Figure 2.1
State Requirements Regulating Health Services

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Legal Requirement for School Nursing Services				•		•	•	•	•	•		•			•	•		•	•	•	•	•	•				
Require Compliance with OSHA Blood-Borne Pathogen Standards		•	•		•		•		•	•		•		•	•	•	•	•		•	•		•	•			
Provide Funding for School-Based/ School-Linked Clinics	•		•	•	•		•	•	•	•		•		•	•	•	•	•		•	•	•	•				
Some Action to Increase Reporting of Suspected Child Abuse	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	

Figure 2.1
State Requirements Regulating Health Services

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Legal Requirement for School Nursing Services		•	•		•	•	•			•		•	•	•			•	•	•	•	•	•	•		
Require Compliance with OSHA Blood-Borne Pathogen Standards					•	•	•	•		•		•		•	•	•	•		•	•	•	•	•	•	
Provide Funding for School-Based/ School-Linked Clinics					•	•	•			•			•	•	•			•			•				
Some Action to Increase Reporting of Suspected Child Abuse	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	

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rating agencies were:

- department of health (28 states, 55%);
- department of education (4 states, 8%);
- department of labor (2 states, 4%);
- department of human services (2 states, 4%);
- department of social services (2 states, 4%);
- department of medical assistance (1 state, 2%); and
- department of mental health/mental retardation (1 state, 2%);

In 42 states (82%) the lead agency for coordinating school nursing services participated during the two years prior to the SHHPS in joint state state-level activities or projects with state-level responsible for:

- health education (35 states, 69%);
- public health/human resources (30 states, 60%);
- community agencies (28 states, 55%);
- school food service (22 states, 43%);
- school counseling/psychology (18 states, 35%);
- other state agencies (17 states, 33%); and
- physical education (12 states, 24%).

In 28 states (55%) during the two prior years, the state coordinator of school nursing services also collaborated on joint projects with non-governmental community agencies, such as the American Cancer Society, American Lung Association, American School Health Association, Epilepsy Foundation, Mental Health Association, state nurses' associations, organizations

Figure 2.2.
Professional Development For School Health Staff in the Two Years Prior to the Survey

Topic	Number (Percentage) of States Offering Training n (%)	Number (Percentage) of States Offering Materials n (%)
HIV Prevention	42 (82%)	40 (78%)
Universal Precautions	38 (74%)	42 (82%)
Alcohol and other Drug Use Prevention	37 (72%)	31 (61%)
Tobacco Use Prevention	32 (63%)	27 (53%)
Violence Prevention	32 (63%)	26 (51%)
Managing students with chronic conditions (e.g. asthma, diabetes)	29 (57%)	27 (53%)
Managing HIV Infected Students	29 (57%)	28 (55%)
Suicide Prevention	25 (49%)	19 (37%)
Pregnancy Prevention/Family Planning	23 (45%)	22 (43%)
Managing Technology Supported Students	19 (37%)	22 (43%)
Regulations of the Nurse Practice Act	19 (37%)	18 (35%)
C.P.R.	17 (33%)	11 (22%)
First Aid	16 (31%)	17 (33%)

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funded for children, dental and medical association, and family centers. They participated in state-level coalitions that addressed various issues such as rural health, early child care, homelessness, and safe and drug-free schools.

Seventeen state directors (33%) reported that other agencies, corporations or foundations, helped provide conferences, served on task forces, or helped develop curriculum or policy. These agencies included health departments; AIDS advisory committees; comprehensive school health coalitions; child abuse prevention agencies; division of specialized care; task forces on school-based/school-linked clinics; environmental safety and health committees; and social services departments.

Forty-eight states (94%) had state-level coalitions or associations for school nursing personnel. Of those, 73% (37 states are state school school nurse association and 22% (11 states) are state school health groups. In 44 states (86%), this coalition or association is affiliated with one or more national professional associations:

- National Association of School Nurses (36 states, 71%);
- American School Health Association (7 states, 14%);
- American Nurses' Association (6 states, 12%); and
- National Education Association (3 states, 6%).

Programming

Staff Development for School Health Services Staff

Providing staff development trainings is one way state agencies help schools and health care providers strengthen school health services at the local level. In the two years prior to the SHPPS, 47 states (92%) offered staff development programs to local school health services staff (Figure 2.2). Fifteen states (30%) reported the number of people who attended programs. The range was from 60 to 2,769 participants for all of a state's programs during the two years. All the states but one offered more than one program during the two years. The most popular programs were:

- HIV prevention training (42 states, 82%);
- universal precautions training (38 states, 74%);
- alcohol and other drug use prevention training (37 states, 72%);
- violence prevention training (32 states, 63%); and
- tobacco use prevention training (32 states, 63%).

Other staff development topics included school nursing practice and management issues, orientation for new staff, medications, computer usage, TB control, physical assessment, school-based clinic operations, and comprehensive school health agendas.

As another professional development tool, 45 states (88%) offered educational materials for school health services staffs. The subjects most commonly offered by states during the two years prior to the survey were:

- materials on universal precautions (42 states, 82%);
- materials on HIV prevention (40 states, 82%); and
- materials on alcohol and other drug use prevention (31 states, 61%).

Disease Prevention: Forty-eight states (94%) provide schools or districts some guidelines on controlling the spread of communicable diseases. Thirty-two states (63%) require schools to comply with the Occupational Safety and Health Administration's (OSHA) Bloodborne Pathogens Standards (Figure 2.1). Most other strategies that states use to provide such guidance involve infection control practices, often called universal precautions. Universal precautions involve guidelines for hand washing and use of gloves to prevent the spread of diseases. The term implies that health care providers and other school staff take appropriate measures when handling the blood or other body fluids of anyone regardless of any knowledge or lack of knowledge of whether the person has a communicable disease.[10]

State-level activities to prevent the

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spread of disease in schools included:

- distributing guidelines on following universal precautions to district or school staff (44 states, 86%);
- providing a copy of guidelines on universal precautions to each district or school (37 states, 73%);
- providing periodic in-service training on following universal precautions to district or school staff (35 states, 69%); and
- distributing supplies necessary for following universal precautions to each district or school (5 states, 10%); and
- distributing lists of supplies necessary for following universal precautions to each district or school (5 states, 10%);

Twenty-four states (47%) monitored compliance with these guidelines for following universal precautions by:

Figure 2.3
Requirements Regulating HIV Policies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachussetts	Michigan	Minnesota	Mississippi	Missouri
Required Policy for Students		•	•		•		•	•	•	•	•	•			•								•		•	
Required Policy for School Staff		•	•		•		•	•	•	•	•	•			•							•	•		•	
Legal Basis: Federal								•				•			•							•			•	
State Legislation			•		•		•	•	•	•		•			•								•			
State Education Agency Policy		•	•		•			•	•	•	•	•											•		•	
State Health Department Policy					•					•		•											•			

Figure 2.3
Requirements Regulating HIV Policies

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Required Policy for Students		•		•	•	•		•	•		•	•		•	•	•	•	•	•		•		•	•	
Required Policy for School Staff		•		•				•	•		•	•			•	•	•	•	•				•	•	
Legal Basis: Federal		•						•						•	•								•		
State Legislation		•		•	•			•	•		•	•		•	•	•	•				•		•	•	
State Education Agency Policy		•		•	•			•				•		•		•	•						•	•	
State Health Department Policy		•		•	•			•				•		•	•									•	

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- performing periodic on-site monitoring (12 states, 24%);
- having state OSHA offices monitor compliance (6 states, 12%);
- requiring districts to submit periodic compliance reports (3 states, 6%);
- requiring schools to submit periodic compliance reports (1 state, 2%); and
- asking a question in the annual superintendents report about following universal precautions (1 state, 2%).

HIV Infection Policies

Since it was first identified in 1981, the human immunodeficiency virus (HIV) has garnered national attention and debate. Significant progress has been made in understanding the etiology and pathology of the disease, but a cure remains illusive. Prevention education remains the most powerful tool in the national campaign to limit the spread of HIV.

Nearly 1.5 million people in the United States already may be infected, often without signs or indications of disease.[11] These behaviors that place people at risk (sexual behaviors and sharing needles) are a particular worry among the young. According to the 1993 Youth Risk Behavior Survey,[12] 80% of African-American high school students, 56% of Hispanice students, and 48% of white students have had sexual intercourse. Of sexually active high school students, 19% have had four or more partners. Only 53% of currently sexually active high school students used a condom at last sexual intercourse. Although only 1% of high school students reported injecting drugs, 48% reported using alcohol in the last 30 days, a behavior that contributes to poor decision making. Healthy People 2000[11] identified several objectives related to HIV prevention among youth and school-based personnel:

- reduce the proportion of adolescents who have engaged in sexual intercourse to no more than 15% by age 15 and no more than 40% by age 17 (Baseline: 27% of girls and 33% of boys by age 15; 50% of girls and 66% of boys by age 17; reported in 1988).
- increase to at least 50% the proportion of sexually active, unmarried people who used a condom at last sexual intercourse (Baseline: 19% of sexually active, unmarried women aged 15 through 44 reported that their partners used a condom at last sexual intercourse in 1988).
- increase to at least 95% the proportion of schools that have age-appropriate HIV education curricula for students in grades four through 12, preferably as part of quality school health education (Baseline: 66% of school districts required HIV education and 5% of school districts required HIV education in each year for grades seven through 12 in 1989).

Healthy People 2000[11] has one objective related to reducing the risk for transmission of HIV in the workplace by focusing on preventing exposure to blood.

Specifically, the objective reads: "Extend to all facilities where workers are at risk for occupational transmission of HIV, regulations to protect workers from exposure to bloodborne infection including HIV infection" (Baseline: unavailable).

Although the OSHA regulations on which this objective is based focused on hospitals, schools have recognized the need for universal precautions to prevent exposure to blood or other body fluids by students or school staff. The use of universal precautions when handling blood and body fluids of anyone minimizes the risk of transfer of causative microorganisms. In 1988, CDC issued guidelines for school health programs to prevent the spread of the human immunodeficiency virus that causes AIDS. The guidelines[13] were designed to assist school personnel to plan, implement, and evaluate educational efforts to prevent unnecessary deaths associated with AIDS. The document requested the development of school district policies on AIDS education as the first step in developing an AIDS prevention program. The guidelines also call for staff development for educational personnel, programs taught

by qualified teachers, comprehensive instruction addressing the broad range of behaviors exhibited by young people, sufficient time and resources to assure that policies and programs are well implemented, and program assessment.

Thirty states (59%) indicated they required schools to have a policy about HIV infection. Twenty-nine states (57%) indicated the policy covered students and 27 states (53%) reported the policy covered school staff. Policy statements were based on:

- federal legislation as the legal basis for policies in 10 states (20%);
- state legislation as the legal basis in 23 states (45%);
- state education agency policy in 18 states (35%); and
- state health agency policy in 15 states (30%).

Additional recommendations included:

- support for HIV prevention education for students in 41 states (80%);
- support for HIV prevention education for staff in 40 states (78%);
- procedures for evaluating the health status of HIV-infected students and school staff in 31 states (61%);
- procedures for maintaining confidentiality in 46 states (90%);
- procedures to protect HIV-infected students and staff from discrimination in 40 states (78%);
- a statement about the inapporpriateness of routine testing of students and school staff for HIV infection in 17 states (33%);
- procedures for communicating the policy to students, school staff, and parents/guardians in 31 states (61%); and
- procedures for implementing the policy in 30 states (59%).

State-level Support for School-Based or School-Linked Clinics

School-based and school-linked clinics are primary care facilities located at or near schools that provide some combination of medical care and mental health screening and treatment for young people. The clinics are intended to overcome barriers that adolescents perceive in the traditional health care setting, such as concern about lack of confidentiality, lack of transportation, cost, and inconvenient appointment times.[14]

School-based clinics are located on the school grounds, while school-linked clinics are located near a school campus and predominantly serve a school-aged population. While services vary, these clinics use a multidisciplinary approach to service delivery that includes a combination of physicians, nurse practitioners or physicians assistants, nurses, clinical social workers, mental health professionals, counselors, support staff, and other health care professionals, such as dentists and dietitians.[14]

By late 1992, 415 school-based and 95 school-linked clinics operated in 42 states and the District of Columbia. Sixty percent were in urban areas and 31% in rural areas.[14] In fall 1994 a Robert Wood Johnson survey reported 607 school-based clinics in 41 states and the District of Columbia.[9] Twenty-eight percent served an elementary school population, 16% a middle school population, 46% a secondary population, and 10% a combination.[9]

In the School Health Policies and Programs Study reported here, many states support both school-based (SBC) and school-linked (SLC) programs. Twenty-seven states (53%) provide some funding for SBC and 23 states (45%) provide some for SLC. All together 29 states (59%) provided funding for some school-based or school-linked clinics (Figure 2.1). The Robert Wood Johnson survey reported that state revenues represent one of the largest sources of money used by school-based clinics to finance operations. According to the RWJ survey, the amount of state funding increased 140% in two years, from $9.2 million in 1992 to $22.3 million in 1994.[9]

Figure 2.4
Recommendations
for HIV Policies

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachussetts	Michigan	Minnesota	Mississippi	Missouri
Prevention Education for Students	•		•	•	•	•	•		•	•	•	•		•	•	•	•	•	•	•	•		•	•		
Prevention Education for Staff	•		•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•			
Procedures for Evaluating Health Status	•			•		•	•		•	•		•		•	•	•	•	•	•		•	•	•		•	
Procedures for Maintaining Confidentiality	•		•	•	•	•	•	•	•	•		•		•	•	•	•	•	•	•	•	•	•	•	•	
Procedures to Protect From Discrimination	•		•	•	•	•	•	•	•	•		•		•	•	•	•	•		•		•		•	•	
Statement on Routine Testing			•	•					•	•					•	•	•	•			•			•		
Procedures for Communication	•			•	•	•	•	•	•	•		•		•	•	•	•	•		•		•		•		
Procedures for Implementation	•		•		•	•	•	•	•			•			•	•	•	•		•		•	•		•	•

Figure 2.4
Recommendations
for HIV Policies

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Prevention Education for Students	•	•	•		•		•	•	•				•		•	•	•	•	•	•	•		•	•	
Prevention Education for Staff	•	•	•		•		•		•	•			•		•	•	•	•	•		•	•		•	•	
Procedures for Evaluating Health Status		•	•						•		•				•	•	•	•		•		•		•	•	
Procedures for Maintaining Confidentiality	•	•	•		•	•	•		•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Procedures to Protect From Discrimination	•	•	•		•	•	•		•	•			•	•	•		•	•	•	•	•	•	•	•	•	
Statement on Routine Testing	•	•	•											•			•				•		•	•		
Procedures for Communication	•	•	•		•		•		•	•			•		•			•			•	•			•	
Procedures for Implementation		•	•		•		•		•	•			•		•	•		•				•	•	•	•	

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Policies

Health Records

Most states, 48 (94%) required districts or schools to maintain health records on each student. The required records included:

- immunization (46 states, 90%);
- physical examination reports from a physician or other health care provider (22 states, 43%);
- screening (19 states, 37%);
- medical emergency forms (17 states, 33%);
- medical information forms from parents/guardians (13 states, 25%);
- tuberculosis skin test results (13 states, 25%);
- directions on medication administration (11 states, 22%);
- referrals (four states, 8%);
- first aid (three states, 6%);
- health records for each student (two states, 4%);
- physical impairment, if one is suspected (one state, 2%); and
- records of a health assessment (one state, 2%).

Thirty-nine states (76%) had written policies concerning students' health records. Policies included requirements for:

- protection of confidentiality of health information (31 states, 61%);
- transfer of health records when students transfer schools (30 states, 59%);
- disposition of school health records upon graduation or other termination of school experience (24 states, 47%); and
- communication of the Nurse Practice Act to school health services staff (9 states, 18%).

Screening

To identify those students with health problems that might impair a students ability and learn and that could go undetected or become obvious only at a later time when treatment is more costly and less effective,[15] many states require periodic screenings of students for specific problems (Figure 2.5).

The most common screening processes required of local school districts are:

Hearing: Puretone audiometric screening is recommended in early fall before respiratory diseases begin. More states require a hearing screening than any other type of screening (Figure 2.5).

- 31 states (60%) required hearing screening at some time during a student's school experience.
- 30 states (59%) required hearing screening in kindergarten.
- 21 states (41%) required hearing screening at first and third grades.

Vision: The AAP[16] recommends annual vision screening for students K-12. Figure 2.5 lists states requiring vision screening.

- 30 states (59%) required vision screening sometime during a student's school experience.
- 22 states (43%) required vision screening at first and second grade.
- 21 states (41%) required vision screening at third grade.

Scoliosis: Screening helps identify students with early curvature that could benefit from bracing, and thus prevent surgery. Some lateral curvature of the spine occurs in 1%-5% of the adolescent population Figure 2.5 identifies states requiring scoliosis screening.

- 26 states (51%) required scoliosis screening at some time during the students' experience K-12.
- 14 states (27%) required scoliosis screening in sixth grade.
- 17 states (33%) required scoliosis screening in seventh grade.
- 16 states (31%) required scoliosis screening in eighth grade.

Other screenings required at sometime for K-12 students by some states include height and weight in 13 states (25%), in dental health problems in 10 states (20%), and in blood pressure in eight states (16%).

Since 1987, the number of screenings required nationwide decreased by two states for hearing and vision, but increased for scoliosis screening by 16 states, for dental screening by two states and for height and weight screening by one state.[8]

Figure 2.5
State Requirements
Regulating
Health Screenings

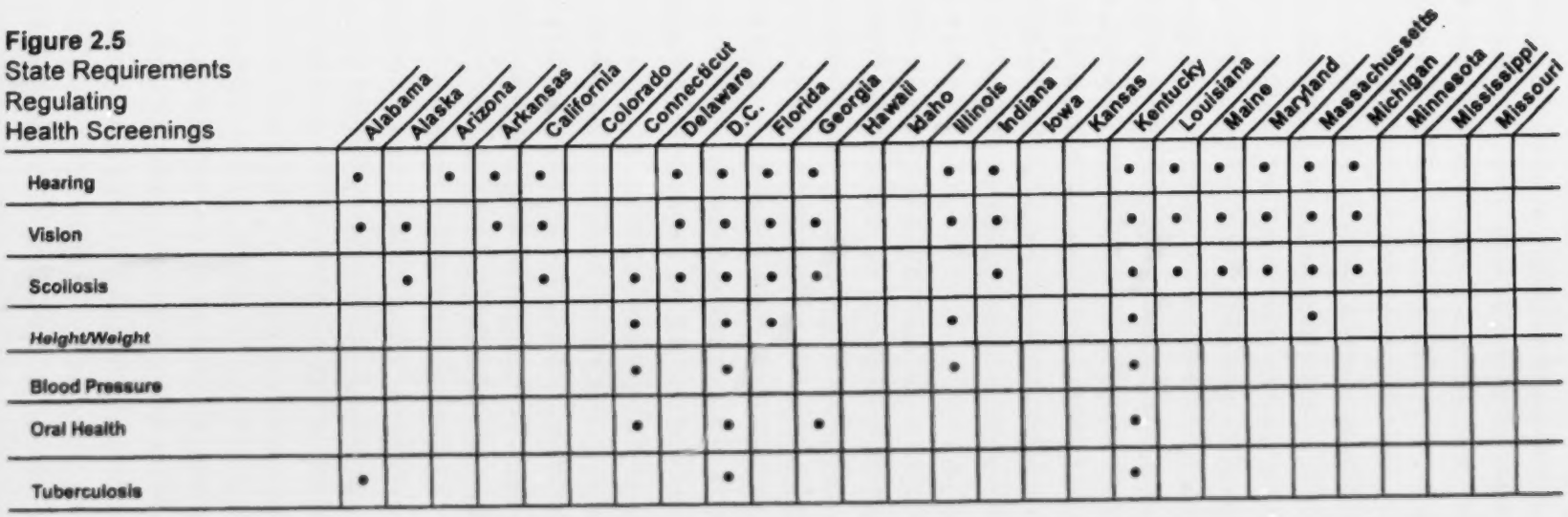
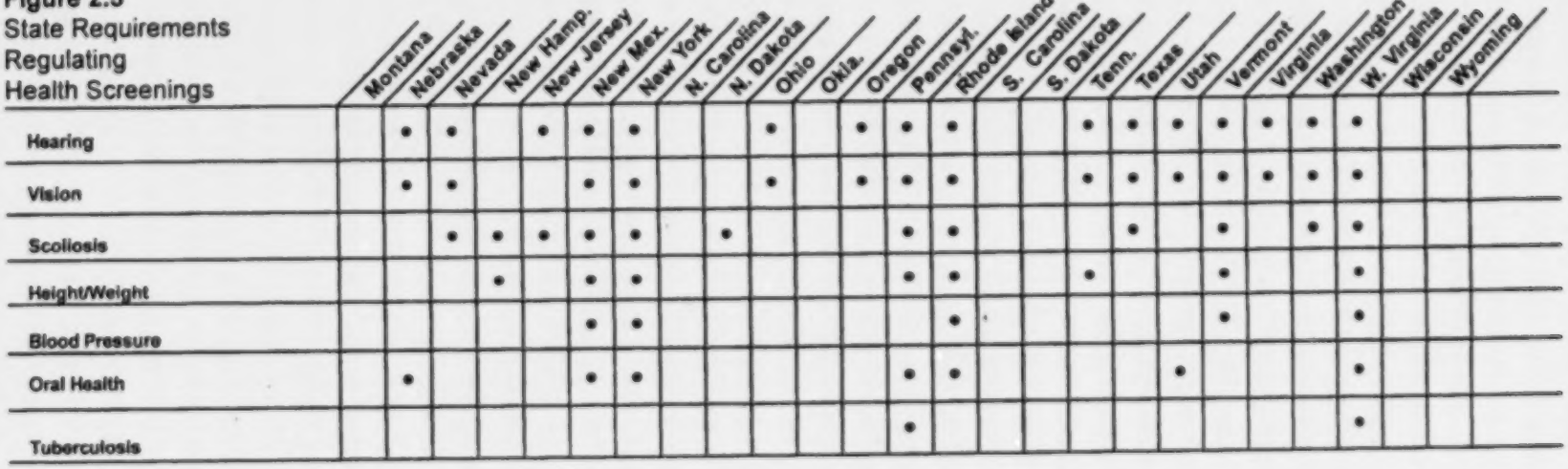


Figure 2.5
State Requirements
Regulating
Health Screenings



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Screening students for correctable health problems has no benefits if students do not receive referral, treatment, and follow-up for problems found during screening.

Most states require notifying parents or guardians of problems detected during routine screening, providing them with assistance in obtaining needed health services and reporting numbers of students screened (Figure 2.6). The number of states requiring each type of screening, follow-up activities varies by problem screened for as well as by state.

Of the states that require taking some action for detected problems, only 39 states (77%) monitor school districts' compliance with the requirements. Those that do monitor use one or more of the following:

- periodic on-site monitoring (14 states, 28%);
- periodic compliance reports submitted by disctricts (16 states, 31%); and
- periodic compliance reports submitted by schools (15 states, 29%).

Figure 2.6
State Requirements for Follow-up After Screening Procedures (Number and Percentage of States That Require Schools/Districts)

	Take Action n (%)	Notify Parent n (%)	Assist to Get Service n (%)	Report Numbers n (%)
Hearing	37 (73%)	34 (66%)	19 (37%)	23 (45%)
Vision	36 (71%)	33 (65%)	19 (37%)	23 (45%)
Scoliosis	34 (66%)	34 (66%)	22 (43%)	22 (43%)
Ht./Wt.	15 (29%)	13 (25%)	7 (14%)	7 (14%)
B/P	16 (31%)	16 (31%)	8 (16%)	8 (16%)
Dental	19 (37%)	17 (33%)	11 (22%)	7 (14%)
TB	15 (29%)	13 (25%)	9 (18%)	11 (22%)
Hematocrit	1 (2%)	1 (2%)	1 (2%)	0
Lead levels	1 (2%)	1 (2%)	1 (2%)	0
Dev. Assess.	1 (2%)	1 (2%)	1 (2%)	0
Health Assess.	1 (2%)	1 (2%)	1 (2%)	0
Physical Exam	2 (4%)	2 (4%)	1 (2%)	0

Immunizations for Entry into School

Routine immunizations required for school entry include polio, diphtheria, pertussis (whooping cough), and tetanus (DPT), and measles, mumps, and rubella (german measles) (MMR); and, in some states, hemophilus influenza (Hib-B), and hepatitis B (HBV).

State laws provide exemptions of students with religious or medical conflicts.

Diphtheria, Tetanus, and Pertussis

AAP and CDC recommend five doses of diphtheria, tetanus, and pertussis by the age of six.[16] The SHPPS in 1994 found that 11 states (22%) required five doses for entry into school, 23 states (45%) require four doses, and 15 states (29%) require three doses. Two states did not respond to the question. Ten states (20%) required five doses of pertussis, 22 states (43%) required four doses, 14 states (27%) required three doses, and one state (2%) required one dose of pertussis.

Measles, Mumps, and Rubella

The CDC and AAP recommend two doses of the combined measles, mumps, and rubella (german measles) vaccine, with the first dose given between 12 and 18 months of age. The second dose is routinely recommended at 4-6 years of age, or at 11-12 years of age.[16] While most states (76%) required a second dose of measles vaccine, the age when it is required varies. Many place an emphasis on immunization at school entry. Twenty-four states (47%) required a student to have a second dose of measles prior to entering kindergarten. However, 22 states (43%) did not require the second dose until grade six or seven.

(Hib-B) Hemophilus Influenza B

Hemophilus influenza B is the immunization that prevents meningitis. The SHPPS found that six states (12%) required at least one dose by first grade. By the 1996-1997 study, all states required such immunization.

(HBV) Hepatitis B

AAP and CDC recommend three doses of Hepatitis B vaccine by age 2, with administration by 11-12 for those not already immunized. At the time of the 1994 SHPPS, 17 states had laws or rules regarding Hepatitis B vaccination, and eight states had laws and rules pending.[16]

Polio

AAP and CDC recommend four doses of a polio vaccine (either IPV, OPV, or a combination) by age six.[16] Every state required at least two doses for school entry.[15]

The SHPPS found that 25 states (50%) will not allow a student to enroll without necessary immunizations. Another 18 states (39%) allow students to enroll but limited the number of days they may attend without immunization records. These limitations ranged from 10 to 120 days, with the mean being 51 days and the mode 90 days.

Medication Policy

Medication policy often includes parent permission or authorization, a health care professional's order to dispense, a medication log, a safe storage area, a medication error reporting system,[17] and documentation of training of any unlicensed personnel allowed to dispense medications.

Thirty-one states (61%) required some documentation before school personnel may give medicaitons to students. Required documentation included written instructions about the medication (eg, dosage) from the physician or other authorized prescriber (27 states, 53%), and written request from parents/guardians to administer the medication (26 states, 51%).

Fourteen states had other policies regarding giving medication to students at school; two other states permitted RNs to dispense medication. One state allowed other school personnel to dispense medications after having 16 hours of training and if an RN was not available. One state required school nurses to develop medication plans.

Sixteen states' medication policies specified what medications students may carry during the school day.

Six states (12%) permitted students to carry and use inhalers, two states (4%) allowed them to carry epinephrine, three states (6%) allowed students to carry any medicine for which they had written parental permission; four states allowed students to carry any medicine for which they had an authorized prescriber's permission; and two states allowed students to carry any medication included in that student's individualized medication plans.

Reporting Child Abuse

Child abuse includes physical, verbal, sexual, and emotional abuse as well as neglect and abandonment. Every state requires individuals with professional responsibilities for children to report suspected cases of child abuse.[18] Forty-eight states (94%) have taken some action to increase the likelihood that school staff will recognize and report suspected cases of physical and sexual abuse. The actions include required school personnel to:

- submit all suspected child abuse reports to the district or state (31 states, 61%);
- distribute guidelines for recognizing and reporting abuse to district school staff (32 states, 62%);
- provide periodic inservice training on recognizing and reporting abuse to district or school staff (30 states, 59%); and
- require each district or school keep a copy of the guidelines for recognizing and reporting abuse (11 states, 22%).

Student-to-Nurse Ratio

Few states required the nurse-to-student ratios that the American School Health Association[19] and the American Nurses Association[20] recommend, ie, 1:750 for the general school population; 1:250 for the mainstreamed, special education population; and 1:125 for the special needs population. Only six states (12%) have any requirements for nurse-to-student ratios and 19 states (37%) have recommended nurse-to- student ratios (Figure 2.7).

40

Figure 2.7
States That Mandate a Nurse-to-Student Ratio*

State	Population	Ratio
Delaware*	Regular Education	1 nurse per 40 teacher units
Minnesota	Regular Education	1:1000
New Mexico	Regular Education	1:1200
Nevada	Regular Education	1:1000
Pennsylvania	Regular Education	1:1500
West Virginia	Regular Education	1:1500

** One state (2%) requires a nurse-to-school ratio and another state requires one nurse per school for vocational education and special populations while having a different regulation for regular education.*

School Nurse Certification

To meet the needs for a unified, nationally accepted standard of practice for school nursing, five professional associations published the *Standards for School Nursing Practice* in 1983.[21] The American Nurses Association consolidated nursing practice in a 1991 publication, *Standards of Clinical Nursing Practice*.[20] The National Association of School Nurses prepared and published *School Nursing Practice: Roles and Standards*[22] in 1993 in order to incorporate the new ANA Standards with school nursing practice. This 1993 document incorporates the original *Standards for School Nursing Practice* and two additional standards important for the preparation of school nurses:[22]

1. Clinical knowledge: School nurse utilizes a distinct knowledge base for decision-making in nursing practice.
2. Nursing process: School nurse uses a systematic approach to problem-solving in nursing practice.
3. Clients with special needs: School nurse contributes to the education of the client with special health needs by assessing the client, planning and providing appropriate nursing care, and evaluating the identified outcomes of care.
4. Communication: School nurse uses effective written, verbal, and non-verbal communication skills.
5. Program management: School nurse establishes and maintains a comprehensive school health services program.
6. Collaboration within the school system: School nurse collaborates with other school professionals, parents, and caregivers to meet the health, developmental, and educational needs of clients.
7. Collaboration with community health system: School nurse collaborates with members of the community in the delivery of health and social services, and utilizes knowledge of community health systems and resources to function as a school-community liaison.
8. Health education: School nurse assists students, families, and the school community to achieve optimal levels of wellness through appropriately designed and delivered health education.
9. Research: School nurse contributes to nursing and school health through innovations in practice and participation in research or research-related activities.
10. Professional development: School nurse identifies, delineates, and clarifies the nursing role, promotes quality of care, pursues continued professional enhancement, and demonstrates professional conduct.

Some states require special certification for school nurses beyond licensure as a registered nurse. State certification sometimes parallels teacher certification and does not require additional nursing knowledge, while other state certification requirements call for additional training. Thirty-one states (61%) offered state certificates for school nurses, and 21 states (41%) required this certification for employment as a school nurse. The educational preparation required as part of certification as a school nurse varies by state:

- 25 states (50%) require a minimum of an RN with a baccalaureate degree;
- 10 states (20%) require a minimum of an RN with a diploma from a nursing school;
- 1 state (2%) requires a minimum of a baccalaureate degree in nursing (BSN) for provisional certification and an MSN within 10 years for a professional certificate; and
- 1 state (2%) require a minimum of an LPN/LVN license.

Four states (8%) require school nurses to be certified by the American Nurses Association or the National Association of School Nurses. Both ANA and NASN offer voluntary, periodic certification by examination.

To retain certification, school nurses must submit continuing education units (CEUs) to the state in 18 states (35%). Seven states (14%) required these CEUs to be directly related to school health services issues. The number of hours of CEUs states require of school nurses to retain their

certification varies from five to 90 hours and the time permitted to earn the CEUs ranged from one to five years. The most frequent requirement for CEUs was 30 hours, the average requirement was 35 hours, and the median requirement was 40 hours. The number of years allowed to acquire these CEUs varied from one year (one state, 2%) to five years (six states, 12%). Five states, 10% allowed two years, and one state, 27% allowed three years.

School Health Aides: Schools frequently employ health or clinic assistants to help the school nurse deliver specific health services or perform clerical functions. In many cases, states employ health aides as the only person in the school clinic with no registered nurse present. Thirty-eight states (75%) allow schools to employ school health aides, but only three states (6%) required specific technical training for school health aides. Eighteen states (36%) require health aides to work under the supervision (training, evaluation, and monitoring) of a nurse or physician at all times.

Improving School Health Services

The SHPPS survey asked respondents a series of open-ended questions about ways to improve school health services. A summary of the responses of state-level coordinators who completed the questionnaire follows each question.

What would you like to do that you have been unable to do in school health services in your state?

The most common responses included:

- improve the ratio of school nurses to at least one per school; and
- hire a state-level school nurse consultant to improve coordination for man-

Figure 2.8
State Requirements Regulating Certification

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D. C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Certification for School Nurses			•	•	•	•		•	•				•	•	•		•	•	•	•		•	•	•			
School Nurse Certification Required			•	•	•	•		•					•	•					•	•		•		•			
Continuing Education Required				•	•	•		•					•		•	•	•	•		•		•		•			

Figure 2.8
State Requirements Regulating Certification

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Certification for School Nurses		•			•	•				•		•	•	•	•	•		•	•	•		•	•	•	•	
School Nurse Certification Required					•	•				•		•	•	•		•				•		•	•		•	
Continuing Education Required		•				•				•			•									•		•	•	

dated school health services across the state.

Other responses with less frequency included hiring BSN prepared school nurses with certification; providing regional and local inservice education; improving nurses' role in providing employee wellness programs; and improving training to include EPSDT, coordination of school-based/ school-linked clinics, developing guidelines for delegation of nursing activities, and using computer skills for documentation and research. Some mentioned a wish to link school health services with school improvement efforts.

What has prevented you from doing these things?

Lack of funding for staff and program expenses, and lack of administrative understanding/support.

Other barriers include lack of a coordinator at the state level and the need for a second state coordinator; lack of appreciation of the role of school nurse; lack of understanding among health departments, school districts, and state agencies; and opposition to school-based clinics.

What has been most helpful in improving school health services in your state?

- a strong collaboration with the state school nurses association;
- use of state tax money for health services that funded 36 school nurse positions and 22 school-based clinics;
- private funding to hire five RNs this year and 15 more for next year;
- the health department providing nursing service in every school for 20 hours a week;
- preparation of a state school health services manual;
- collaboration with agencies and organizations to further school health services;
- state required certification of school nurses; and
- EPSDT funding.

What suggestions or recommendations do you have to improve school health services in your state?

- obtain adequate funding for the health services program;
- secure a coordinator of health services at the state level in each state;
- have a health services supervisor in each district;
- increase administrative support for the value of school health services in a school's total program;
- increase the number of school nurses to lower the ratio between nurses and students;
- establish more school nurse practitioner programs in schools of nursing; and
- collaborate more with other agencies to improve school health services.

Summary

In replying to the state-level School Health Programs and Policies Study questionnaire, state employees with responsibility for school health services in 27 states (53%) reported that their states have a legal basis requiring schools to offer school nursing services. In 42 states (82%) the lead state agency for coordinators of school nursing services had joint state-level activities with other state agencies to promote healthier students in the two years prior to the study. Forty-eight states (94%) require schools and districts to maintain health records on students. Thirty-six states mandate some type of screening for students: hearing screening by 31 states (60%); vision screening by 30 states (59%); height and weight screening by 13 states (25%); and screening for dental health problems in 10 states (20%).

Thirty-one states (61%) have established policies governing the dispensing of medication in schools, 48 states have established

guidelines to increase the likelihood that school personnel will report suspected child abuse and neglect and to increase the likelihood that school staff will follow infection control procedures that prevent the spread of disease. Thirty-one states (61%) offer a certification for school nurses and 21 states (41%) require such certification for employment as a school nurse.

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Healthful School Environment

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The layout, quality, and condition of the physical plant have an effect on those who study and work there.
-- Alan Henderson[14]

Schools represent unique ecosystems in which the physical and social environment interact. A school can be a healthy, comfortable, safe, and aesthetically pleasing environment that enhances well-being and learning; or it can be a place that is hazardous to health and safety and hinders learning. The American Academy of Pediatrics[1] has defined a healthful school environment as one that "protects students and staff against immediate injury or disease and promotes prevention activities and attitudes against known risk factors that might lead to future disease or disability." A healthful school environment addresses both the social climate and the physical facility. This chapter reports the findings from two studies; the School Health Policies and Program Study (SHPPS)[2] sponsored by the Centers for Disease Control and Prevention (See "Introduction"), and the General Accounting Office's report "*School Facilities: Conditions of America's Schools.*"[3]

The General Accounting Office's (GAO) Report *School Facilities: Conditions of America's Schools*[3] provides information on the physical condition of the nation's public elementary and secondary schools, and the extent to which America's 80,000 public schools were designed and equipped to meet the needs of students in the 21st century. The GAO surveyed a nationally representative, stratified random sample of 10,000 schools and visited 10 selected school districts between January 1994 and March 1995. Seventy-eight percent of the schools sampled responded. Although other data in this book examines state-level activities, the GAO report looked at school-level data. It was the only data source that

gave a picture of physical conditions in schools nationally.

Health Policy

The school facility represents the external, tangible environment. Students' and staffs' perceptions of the interactions that take place within the physical environment define the school's "climate."

Figure 3.1
State Requirements for School/District Policies Regarding Tobacco Use

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Require Policy for Students		•			•		•	•	•	•	•	•				•	•				•	•	•	•		•	
Require Policy for School Staff		•			•		•		•	•	•	•					•				•	•	•	•		•	
State Health Department Policy																											
Recommended Focus of School District Policies	•		•		•	•	•	•		•	•	•			•	•	•			•	•	•	•	•		•	
Smokeless Tobacco	•		•	•	•	•	•	•	•	•	•	•			•	•				•	•	•		•		•	

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Figure 3.1
State Requirements for School/District Policies Regarding Tobacco Use

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Require Policy for Students		•	•	•	•		•		•	•		•	•	•	•			•	•	•		•	•	•		
Require Policy for School Staff		•	•	•	•		•		•				•	•	•			•	•	•		•	•	•		
State Health Department Policy				•										•												
Recommended Focus of School / District Policies	•	•	•		•	•	•		•	•		•	•				•	•	•	•	•	•	•	•		
Smokeless Tobacco	•	•	•	•		•	•		•	•		•	•				•	•	•	•	•	•	•			

Climate encompasses social and physical elements and is determined, in large part, by school policies. The social climate within school buildings creates an infrastructure that makes physical, social, and emotional health, as well as achievement, possible. Such an environment is characterized by trust, support, positive regard, high expectations, and identification with the school and its purposes.[6] Particularly helpful are school policies that support and reinforce consistent health messages delivered in the classroom, in the cafeteria, and on the playing field. Examples include policies for students, faculty, and staff, as well as school visitors regarding the use of tobacco, alcohol, or other drugs on school property; policies on discipline, delinquency, and violence; or policies on the inclusion of students with disabling conditions, chronic medical conditions, or HIV.

Tobacco Use Policies

Tobacco use is the leading cause of preventable death in the United States.[4] The majority of daily smokers (82%) began smoking before age 18.[7] An estimated 3,000 plus young people begin smoking each day.[7] The 1995 National Youth Risk Behavior Survey (YRBS)[8] found that 71.3% of students had tried smoking sometime during their lifetime; 34.8% had smoked cigarettes one or more days during the past 30 days; 16.1% reported smoking regularly; and 11.4% used smokeless tobacco during the 30 days preceding the survey.[8] The U.S. Congress authorized the Drug-Free Schools and Communities Act[9] in 1986 to promote policies and programs for the prevention of tobacco, alcohol, and other drug use. The 1994 Pro-Children Act[10] prohibited smoking in indoor facilities providing kindergarten, elementary or secondary education, or library services if the services were supported by federal funds.

Healthy People 2000 included the following tobacco-related objectives for youth:

- reduce the initiation of cigarette smoking by children and youth so that no more than 15% have become regular smokers by age 20 (1987 Baseline: 30%);
- reduce smokeless tobacco use by males ages 12-24 to a prevalence of no more than 4% (1987 Baseline: 6.6%).

The Centers for Disease Control and Prevention, in collaboration with experts in the field of tobacco-use prevention from 29 national, federal and voluntary agencies, has published tobacco prevention guidelines for schools based on an in-depth review of theory and research of current practices in the area of school-based tobacco-use prevention. The guidelines[11] recommend that all schools:

- develop and enforce a school policy on tobacco use;
- provide instruction about the short- and long-term negative physiologic and social consequences of tobacco use, social influences on tobacco use, peer norms regarding tobacco use and refusal skills;
- provide tobacco-use prevention education in grades K-12;
- provide program-specific training for teachers;
- involve parents or families in support of school-based programs to prevent tobacco use;
- support cessation efforts among students and all school staff who use tobacco; and
- assess the tobacco-use prevention program at regular intervals.

In the School Health Policies and Program Study, 32 states (63%) indicated they had a state requirement that school districts or schools have a tobacco use policy. In 28 states (55%), the policy addressed student use and also covered use by school staff (Figure 3.1).

States policies were based on:

- federal legislation (nine states, 18%);
- state legislation (25 states, 49%);
- state education agency requirements (eight states, 16%); and
- state health department policy (two states, 4%).

Twelve states (24%) indicated the state offered no guidelines as to what type of tobacco products should be included in their policies; 38 states (75%) specifically recommended that such policies include

cigarettes and other smoking tobacco products; 35 states (69%) included smokeless tobacco products (snuff and chewing tobacco) as well.

All but seven states (44 states, 86%) reported additional recommended components of tobacco-use policies. These various policies included:

- support for tobacco-use prevention education for students (36 states, 71%);
- definitions of tobacco products (21 states, 41%);
- rules against tobacco use by students (39 states,77%);
- rules against tobacco use by school staff (36 states, 71%);
- rules against tobacco use by school visitors (33 states, 65%);
- descriptions of violations and possible consequences (27 states, 53%);
- due process guidelines for search and seizure and confidentiality (14 states, 28%);
- procedures for communicating the policy to students, school staff and parents/ guardians (28 states, 55%);
- procedures for implementing the policy (23 states, 45%); and
- areas of jurisdiction (eg, school building, school grounds, school-sponsored events and school vehicles) (44 states, 86%).

Areas of jurisdiction in which tobacco was prohibited were specified in more detail for both students and staff by the 44 states responding (Figures 3.2, 3.3, 3.4). Prohibition against tobacco use in the school building during regular school hours for both students and staff was the most common recommended policy. Some states

Figure 3.2
State Recommendations for School / District Tobacco Policy Content

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Prevention Education	•		•	•	•	•	•	•	•	•	•	•			•	•	•			•	•	•	•	•		•	
Definitions				•		•	•	•		•						•	•			•	•	•	•	•			
Rules Against Use By Students	•		•	•	•	•	•	•	•	•	•	•			•	•	•			•	•	•	•	•		•	
Rules Against Use By Staff	•		•	•	•	•	•		•	•	•	•				•				•	•	•	•	•		•	
Rules Against Use By Visitors	•		•	•	•	•	•		•	•	•	•				•	•			•	•	•	•	•		•	
Descriptions of Violations			•		•	•	•		•		•	•			•	•	•			•	•	•	•			•	
Due Process Guidelines			•			•	•		•			•				•	•				•	•	•				
Areas of Jurisdiction	•		•	•	•	•	•	•	•	•	•	•			•	•	•			•	•	•	•	•		•	
Communicating Policy	•		•		•	•	•	•	•	•	•	•			•	•	•			•	•	•	•				
Procedures for Implementing Policy			•		•	•	•	•	•		•	•				•	•			•	•	•	•			•	

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also recommended regulating tobacco use on school grounds during regular and non-school hours, during school-sponsored events off campus, in school vehicles or a specified distance from school grounds (Figures 3.3, 3.4)

Alcohol and Other Drug (AOD) Use Policies

Inappropriate use of alcohol is another major cause of premature death in the United States, responsible for 100,000 deaths annually. Alcohol-related deaths reduce the normal life span an average 26 years. Evidence links alcohol to deaths by motor vehicles, falls, fires, drowning and cirrhosis of the liver.[4] Alcohol use, like tobacco use, is often initiated during adolescence.

According to the 1995 Youth Risk Behavior Survey (YRBS)[5] data, 80.4% of high school students reported drinking alcohol at some time during their lifetime, 51.6% consumed alcohol during the past 30 days and 32.6% consumed five or more drinks of alcohol on at least one occasion during the past 30 days.

Healthy People 2000[6] includes the following alcohol-related objectives for youth:

- reduce the proportion of young people who have used alcohol in the past month from 25.2% to 12.6% (1988 Baseline: 25.2%).
- reduce the proportion of high school seniors engaging in recent occasions of heavy drinking of alcoholic beverages to no more than 28% (Baseline: 33% of high school seniors).

Figure 3.2
State Recommendations for School / District Tobacco Policy Content

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Prevention Education	•	•	•	•	•	•	•		•			•	•	•	•	•			•		•		•			
Definitions	•		•	•			•		•			•				•					•	•				
Rules Against Use By Students	•	•	•	•	•	•	•		•			•		•	•	•	•	•	•		•	•	•	•		
Rules Against Use By Staff	•	•	•	•	•	•	•		•			•		•	•	•		•	•		•	•	•	•		
Rules Against Use By Visitors	•		•	•	•	•			•			•		•	•	•		•	•		•	•	•	•		
Descriptions of Violations	•	•	•				•		•	•						•		•	•		•		•			
Due Process Guidelines		•	•						•										•							
Areas of Jurisdiction	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Communication Policy	•	•	•	•	•		•		•					•	•						•		•			
Procedures for Implementing Policy		•	•		•		•		•					•					•		•					

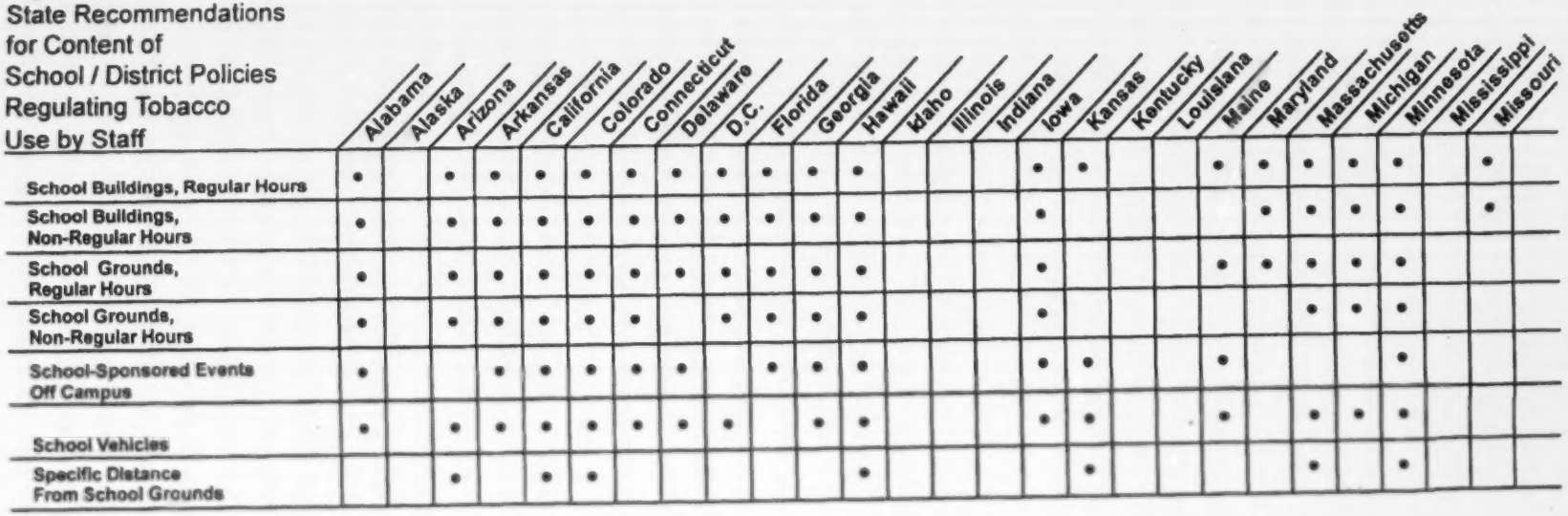
Figure 3.3
State Recommendations for Content of School / District Policies Regulating Tobacco Use by Students

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
School Buildings, Regular Hours	•		•	•	•	•	•	•	•	•	•	•			•	•	•			•	•	•	•	•		•	
School Buildings, Non-Regular Hours	•		•	•	•	•	•	•	•	•	•	•			•	•				•	•	•	•	•		•	
School Grounds, Regular Hours	•		•	•	•	•	•	•	•	•	•	•			•	•				•	•	•	•	•			
School Grounds, Non-Regular Hours	•		•	•	•	•	•	•	•	•	•	•			•	•				•		•	•	•			
School-Sponsored Events Off Campus	•		•	•	•	•	•	•		•	•	•			•	•	•			•		•		•			
School Vehicles	•		•	•	•	•		•	•		•	•			•	•	•			•		•	•	•			
Specific Distance From School Grounds				•	•						•	•			•		•										

Figure 3.3
State Recommendations for Content of School / District Policies Regulating Tobacco Use by Students

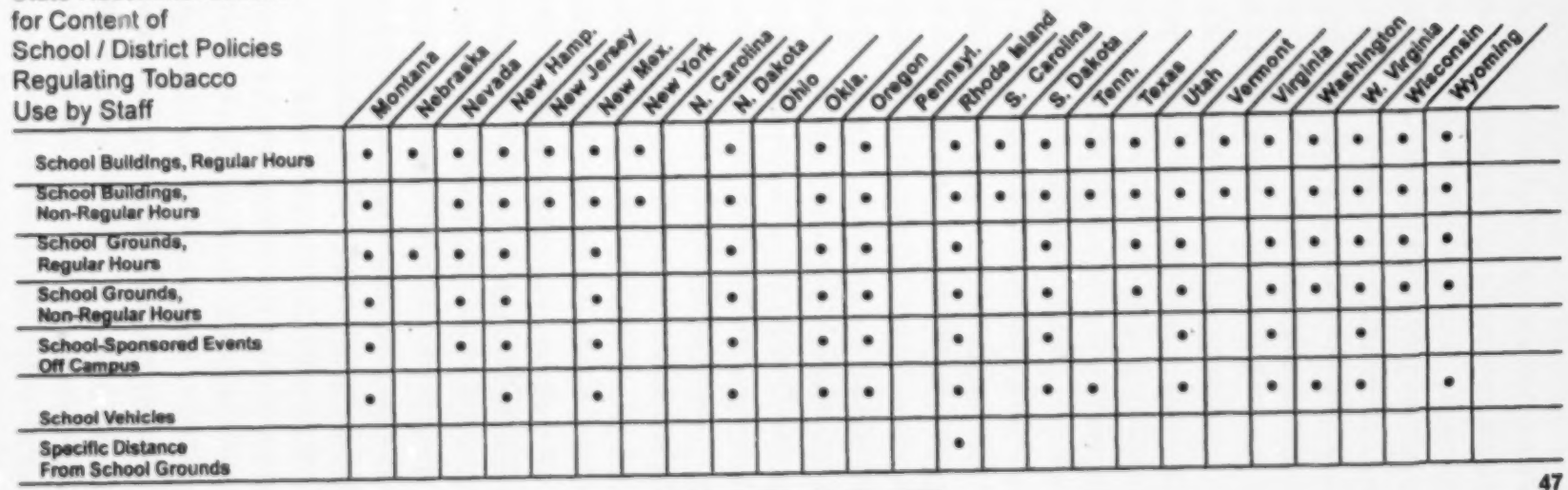
	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
School Buildings, Regular Hours	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
School Buildings, Non-Regular Hours	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
School Grounds, Regular Hours	•	•	•	•		•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
School Grounds, Non-Regular Hours	•	•	•	•		•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
School-Sponsored Events Off Campus	•	•	•	•		•			•	•	•	•		•	•	•	•		•	•	•		•		•	
School Vehicles	•	•	•	•		•			•	•	•	•	•	•	•	•	•		•	•	•	•	•		•	
Specific Distance From School Grounds	•		•						•	•				•												

Figure 3.4
State Recommendations for Content of School / District Policies Regulating Tobacco Use by Staff



	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
School Buildings, Regular Hours	•		•	•	•	•	•	•	•	•	•	•				•	•			•	•	•	•	•		•	
School Buildings, Non-Regular Hours	•		•	•	•	•	•	•	•	•	•	•				•					•	•	•	•		•	
School Grounds, Regular Hours	•		•	•	•	•	•	•	•	•	•	•				•				•	•	•	•	•			
School Grounds, Non-Regular Hours	•		•	•	•	•	•		•	•	•	•				•						•	•	•			
School-Sponsored Events Off Campus	•			•	•	•	•	•		•	•	•				•	•			•				•			
School Vehicles	•		•	•	•	•	•	•	•		•	•				•	•			•		•	•	•			
Specific Distance From School Grounds			•		•	•						•					•					•		•			

Figure 3.4
State Recommendations for Content of School / District Policies Regulating Tobacco Use by Staff



	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	
School Buildings, Regular Hours	•	•	•	•	•	•	•		•		•	•		•	•	•	•	•	•	•	•	•	•	•	•	
School Buildings, Non-Regular Hours	•		•	•	•	•	•		•		•	•		•	•	•	•	•	•	•	•	•	•	•	•	
School Grounds, Regular Hours	•	•	•	•		•			•		•	•		•		•		•	•		•	•	•	•	•	
School Grounds, Non-Regular Hours	•		•	•		•			•		•	•		•		•		•	•		•	•	•	•	•	
School-Sponsored Events Off Campus	•		•	•		•			•		•	•		•		•			•		•		•			
School Vehicles	•			•		•			•		•	•		•		•	•		•		•	•	•		•	
Specific Distance From School Grounds														•												

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• provide to children in all school districts and private schools primary and secondary school education programs on alcohol and other drugs, preferably as part of quality school health education (Baseline: 63% provided some instruction, 39% provided counseling, and 23% referred students for clinical assessments in 1987).

In addition, the Drug-Free Schools and Communities Act of 1986[9] promotes the development of policies and programs to reduce alcohol and other drug use, including tobacco.

In the School Health Policies and Programs Study (SHPPS), 5 states (10%) did

Figure 3.5
States Requiring
School / District Policies
Regulating
Alcohol and Other Drug Use

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Required Policy for Students	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•		•	
Required Policy for School Staff	•	•	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•	•	•	•	•		•	
Legal Basis Federal	•	•	•	•	•	•	•	•		•	•	•		•	•	•	•	•		•	•	•	•		•	
State Legislation	•	•	•		•		•		•	•	•	•		•	•		•		•	•			•			
State Education Agency Policy								•	•	•		•					•		•	•	•					
State Health Department Policy																										

Figure 3.5
States Requiring
School / District Policies
Regulating
Alcohol and Other Drug Use

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Required Policy for Students		•	•	•	•	•	•	•	•	•		•	•	•	•		•	•	•	•	•	•	•	•	•	
Required Policy for School Staff		•	•	•	•	•	•	•	•	•		•	•	•	•			•	•		•	•	•	•	•	
Legal Basis Federal		•	•	•	•	•	•	•	•	•		•	•	•	•					•	•	•	•	•	•	
State Legislation			•	•	•		•	•				•	•	•			•		•	•		•		•		
State Education Agency Policy			•	•	•			•										•		•			•			
State Health Department Policy		•																								

not require school districts to have an alcohol and other drug use policy (Figure 3.5). The remaining 46 states (90%) required schools to have a policy related to students and 43 states (84%) required that policies include school staff. Forty-one states (80%) cited federal legislation as the legal basis for the requirement; 28 states (55%) cited state legislation; 15 states (29%) cited state education policy; and one (2%) cited state health department policy. In addition to the requirements, states recommended that school districts adopt policies (Figure 3.6) that:

- support alcohol and other drug use prevention education for students (41 states, 80%);
- define alcohol and other drugs (35 states, 69%);
- prohibit alcohol and other drug use by students (44 states, 86%);
- prohibit alcohol and other drug use by school staff (41 states, 80%);
- prohibit alcohol and other drug use by school visitors (34 states, 67%);
- describe violations and possible consequences (41 states, 80%);
- provide due process guidelines for search and seizure and confidentiality (32 states, 63%);
- define areas of jurisdiction (eg, school building, school grounds, school-sponsored events, and school vehicles) (38 states, 75%);
- include procedures for communicating the policy to students, school staff, and parents/guardians (41 states, 70%); and
- specify procedures for implementing the policy (32 states, 63%).

Violence Prevention Policies: Physical Fighting, Weapon Possession, and Use

Violent and abusive behavior is increasingly a problem for students as well as for other Americans and exacts a large toll on physical and mental health. The United States ranks first among industrialized nations in violent death rates. The deaths caused by violent and unintentional misuse of firearms exceed in number the combined total of the next 17 nations.[5] Homicide is the leading cause of death for African-Americans ages 15 through 34, and suicide is the third-leading cause of death among people ages 15 through 24.[4] According to the 1995 Youth Risk Behavior Survey,[8] 38.7% of high school students were in a physical fight at least once during the past 12 months, 20% carried a weapon at least once during the past 30 days, 8.4% were threatened or injured with a weapon on school property, 15.5% were in a physical fight on school property in the last year and 34.9% had property stolen or deliberately damaged on school property one or more times during the past 12 months. Many (24.1%) reported suicide ideation, 17.7% reported developing a suicide plan, 8.7% reported attempting suicide, and 2.8% reported a suicide attempt that required medical attention.

The 1993 Review of *Healthy People 2000*[12] revised several violence objectives based on new baseline data. The objectives call for:

- reducing by 20% the incidence of physical fighting among adolescents ages 14-17 (Revised Baseline: 137 incidents per 1,000 students per month in 1991).[12]
- reducing by 20% the incidence of weapon carrying by adolescents ages 14-17 to no more than 86 incidents per 1,000 students per month (Revised Baseline: 107 incidents per 1,000 students per month in 1991).
- increasing to at least 50% the proportion of elementary and secondary schools that teach non-violent conflict resolution skills, preferably as part of quality school health education (Baseline: unavailable). Further federal support for policies and programs to reduce violence was provided in 1994 when Congress amended the Drug-Free Schools and Communities Act[9] to include violence prevention and re-authorized it as the Safe and Drug-Free Schools and Communities Act.[13] The *Goals 2000 - Educate America Act*[5] addressed violence prevention in goal seven: "By the year 2000, every school in the United States will be free of drugs, violence and the unauthorized presence of firearms and alcohol, and will offer a disciplined environment conducive to learning."

In the SHPPS, 20 states (39%) reported requiring school districts to have violence prevention policies for students and 12 states (24%) required extending that policy to school staff (Figure 3.7). One state (2%) provided no legal basis for these requirements, two states (4%) cited federal legislation as the legal basis, 16 states (31%) referred to state legislation, and eight states (16%) cited state education agency policy. Recommended components for policies addressing physical fighting among students included:

- support for violence prevention education for students (20 states, 39%);
- definitions of physical fighting (23 states, 28%);
- rules against fighting by students (20 states, 39%);
- descriptions of violations and possible consequences (21 states, 41%);
- guidelines for confidentiality (19 states, 37%);
- areas of jurisdiction (eg, school building, school grounds, school-sponsored events and school vehicles) (18 states, 35%);
- procedures for communicating the policy to students, school staff, and parents/guardians (22 states, 43%); and
- procedures for implementing the policy (17 states, 33%).

Recommended policy components that address weapons included (Figures 3.8, 3.9):

Figure 3.6
State Recommendations for Content of School /District Policies Regulating Alcohol and Other Drug Use

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Prevention Education	•		•	•	•	•	•	•	•	•	•	•		•	•		•	•	•	•	•	•	•	•		•	
Definitions of AOD			•	•	•	•	•	•	•	•		•			•		•	•	•	•	•	•	•	•		•	
Rules Against Use By Students	•		•	•	•	•	•	•	•	•	•	•		•	•		•	•	•	•	•	•	•	•		•	
Rules Against Use By Staff	•		•	•	•	•	•	•	•	•	•	•		•			•	•	•	•		•	•	•		•	
Rules Against Use By Visitors			•	•	•	•	•		•	•	•	•		•	•		•	•	•	•		•		•			
Descriptions of Violations	•		•		•	•	•	•	•	•	•	•		•	•		•	•	•	•		•		•		•	
Due Process Guidelines			•		•	•	•	•	•		•	•		•	•		•	•		•	•	•	•	•		•	
Areas of Jurisdiction	•		•		•	•	•	•	•		•	•		•	•		•	•	•	•	•	•	•	•		•	
Procedures for Communication			•		•	•	•	•	•	•	•	•		•	•		•	•	•	•	•	•	•	•		•	
Procedures for Implementation			•			•	•	•			•	•		•	•		•	•		•	•		•	•		•	

- support for violence prevention education for students (20 states, 39%);
- definitions of weapons (23 states, 45%);
- rules against weapon possession and use by students (28 states, 55%);
- rules against weapon possession and use by school staff (25 states, 49%);
- rules against weapon possession and use by school visitors (26 states, 51%);
- description of violations and possible consequences (23 states, 45%);
- due process guidelines for search and seizure and confidentiality (22 states, 43%);
- areas of jurisdiction (eg, school building, school grounds, school-sponsored events and school vehicles) (24 states, 47%);
- procedures for communicating the policy to students, school staff and parents/ guardians (22 states, 43%); and
- procedures for implementing the policy (16 states, 31%).

Dissemination of Model Policies

States use a variety of ways to help local school districts develop policies (Figure 3.10). Forty-four states (86%) provided model policies to guide school districts or schools. States provided model policies in the following areas:

- tobacco use (28 states, 55%);
- alcohol and other drug use (32 states, 63%);
- violence prevention (12 states, 24%);
- HIV-infected school staff (33 states, 65%);

Figure 3.6
State Recommendations for Content of School / District Policies Regulating Alcohol and Other Drug Use

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming	
Prevention Education	•	•	•	•	•		•	•	•				•	•	•	•			•	•	•	•	•	•	•	
Definitions of AOD	•	•	•	•	•		•	•	•			•	•	•		•			•		•	•		•		
Rules Against Use By Students	•	•	•	•	•		•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Rules Against Use By Staff	•	•	•	•	•		•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Rules Against Use By Visitors		•	•	•			•	•	•				•	•	•	•		•	•		•	•		•	•	
Descriptions of Violations	•	•	•	•	•		•	•	•				•	•	•	•			•	•	•	•	•	•	•	
Due Process Guidelines		•	•	•	•		•	•	•					•		•			•		•	•			•	
Areas of Jurisdiction	•	•	•	•	•			•	•				•	•	•	•			•	•	•	•	•	•	•	
Procedures for Communication	•	•	•	•	•		•	•	•	•		•	•	•	•	•				•	•	•	•	•	•	
Procedures for Implementation			•		•		•	•	•			•	•	•	•	•			•	•	•	•	•	•	•	

- HIV-infected students (35 states, 69%); and
- HIV education (31 states, 61%).

States also provide in-service training to help school districts draft and implement health-related policies (Figure 3.11).

Forty-eight states and the District of Columbia offered training within the two years preceding this study. Training addressed policies related to:

- tobacco use (32 states, 63%);
- alcohol and other drug use (39 states, 77%);
- violence prevention (30 states, 59%);
- HIV-infected school staff (35 states, 69%);
- HIV-infected students (39 states, 77%); and

Figure 3.7
State Requirements Regulating Violence Prevention: Physical Fighting

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Violence Prevention: Fighting Policy for Students				•				•	•	•					•		•		•		•	•		•			
Policy for School Staff				•				•	•	•							•		•					•			
Legal Basis Federal				•																							
State Legislation								•	•	•					•		•		•			•					
State Education Agency Policy									•	•									•								
State Health Department Policy																											

Figure 3.7
State Requirements Regulating Violence Prevention: Physical Fighting

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Ter...	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Violence Prevention: Fighting Required Policy for Students			•		•		•	•	•					•	•		•		•				•			
Required Policy for School Staff			•		•		•		•														•			
Legal Basis Federal							•																			
State Legislation			•		•			•						•	•		•		•				•			
State Education Agency Policy			•		•			•						•	•											
State Health Department Policy																										

Figure 3.8
State Recommendations for Content of School / District Policies Relating to Physical Fighting

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Prevention Education				•					•	•		•				•			•	•				•			
Definitions of Physical Fighting			•	•			•	•		•		•				•			•			•		•			
Rules Against Fighting			•	•			•	•	•	•		•			•	•			•	•		•		•			
Descriptions of Violations			•	•				•	•	•		•			•	•		•	•			•		•			
Due Process Guidelines			•	•				•	•			•			•	•		•		•	•	•		•			
Areas of Jurisdiction			•	•				•	•			•			•	•				•		•		•			
Procedures for Communication			•	•				•	•	•		•			•	•		•		•		•		•			
Procedures for Implementation			•					•	•			•			•	•				•				•			

Figure 3.8
State Recommendations for Content of School / District Policies Relating to Physical Fighting

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Prevention Education			•	•	•		•	•	•			•		•	•				•					•	•	
Definitions of Physical Fighting			•				•	•	•															•		
Rules Against Fighting			•				•	•	•								•							•	•	
Descriptions of Violations			•				•	•	•					•	•				•					•	•	
Due Process Guidelines			•				•	•	•			•		•											•	
Areas of Jurisdiction			•					•	•			•		•	•				•						•	
Procedures for Communication			•				•	•	•			•		•	•				•					•	•	
Procedures for Implementation			•				•	•	•			•		•					•					•	•	

- HIV education (45 states, 88%).

Nineteen states (37%) provided estimates of the number of individuals who received such training during the two years prior to the SHPPS. Estimates ranged from a low of 200 to a high of 25,000 people. Four states reported training 500 and four states 1,000 individuals.

States also provide or make available to school districts or school staff various materials related to health policy in the area of (Figure 3.12):

- tobacco use (39 states, 76%);
- alcohol and other drug use (42 states, 82%);
- violence prevention (32 states, 63%);
- HIV-infected school staff (40 states, 78%);
- HIV-infected students (41 states, 80%); and
- HIV education (49 states, 96%).

Improving School Health Policies

The School Health Programs and Policies Study asked state officials several open-ended questions about health policies in schools. Frequent responses follow each question.

What would you like to do with school health policies in your state that you have not been able to do?

- clearly align all school health policies with the overarching theme of comprehensive school health.

Figure 3.9
State Recommendations for Content of School / District Policies Relating to Weapons

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Prevention Education				•						•	•	•			•	•			•				•			
Definitions of Weapons			•	•				•	•	•				•	•	•	•		•			•		•			
Rules Against Use By Students			•	•				•	•	•	•	•		•	•	•	•		•			•		•			
Rules Against Use By Staff			•	•				•	•	•				•	•	•	•		•			•		•			
Rules Against Use By Visitors			•	•				•	•	•				•	•	•	•		•			•		•			
Descriptions of Violations			•	•				•	•			•		•	•	•	•					•		•			
Due Process Guidelines			•	•				•	•			•		•	•	•					•	•		•			
Areas of Jurisdiction			•	•				•	•			•		•	•	•	•					•		•			
Procedures for Communication			•	•				•	•	•		•		•	•	•						•		•			
Procedures for Implementation			•					•				•		•	•	•								•			

- have a systematic approach for mandated staff development for the full range of coordinated school health programs.
- require all school districts to have policies.
- make sure everyone connected with schools know, follow, and enforce adopted policies.
- develop strong legislative support for comprehensive health education.
- develop OSHA-like standards for public schools.
- produce a clear, well-organized desk reference manual of codes, laws, and policies that enables districts to find what they need.

What has prevented you from doing the things you just described?

This question produced consistent responses: lack of time, lack of funding, lack of staff, and lack of administrative support. Several respondents also cited local control or local autonomy as an impediment. Another factor often cited was the fragmentation and turf issues of special interest programs.

What has been most helpful to you in improving school health policies in your state?

Some states credited their state boards and superintendents as well as the Department of Public Health, others felt that having federal and state legislation was very helpful. Many felt federal dollars were the engine that drove what areas got addressed.

Figure 3.9
State Recommendations for Content of School / District Policies Relating to Weapons

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Prevention Education			•	•			•	•	•			•		•	•				•				•	•	•	
Definitions of Weapons		•	•	•	•		•	•	•					•				•	•						•	
Rules Against Use By Students		•	•	•	•		•	•	•			•		•	•		•		•				•		•	
Rules Against Use By Staff		•	•	•	•		•	•	•			•		•	•		•		•						•	
Rules Against Use By Visitors		•	•	•	•		•	•	•			•		•	•		•		•				•		•	
Descriptions of Violations		•	•	•			•	•	•			•		•	•				•				•		•	
Due Process Guidelines		•	•		•		•	•	•			•		•			•		•						•	
Areas of Jurisdiction		•	•		•		•	•	•			•		•	•		•		•				•		•	
Procedures for Communication		•	•		•		•	•	•			•		•	•		•								•	
Procedures for Implementation		•	•		•		•	•	•			•		•											•	

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One state felt use of the Youth Risk Behavior Survey and the presentation of the findings, both in the professional literature and the popular press, were helpful in building support. At least two states cited the state and/or the National Association of State Boards of Education as well as technical assistance from CDC in helping write policies. Several states included interagency cooperation and networking across departments.

Figure 3.10
States With
Model Policies For:

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Tobacco Use			•		•	•	•			•		•		•	•	•	•	•			•	•	•			•	
AOD Use			•		•	•	•	•		•	•	•		•	•	•	•	•	•	•	•		•	•		•	
Violence Prevention					•					•		•		•	•	•			•					•			
HIV-Infected Staff	•				•	•	•	•		•	•	•	•		•		•			•			•	•	•	•	
HIV-Infected Students	•				•	•	•	•		•	•	•	•	•	•		•			•			•	•	•	•	
HIV Education	•				•	•	•	•		•	•	•	•		•		•			•			•	•			
Sexual Harassment					•			•		•		•			•	•							•	•			

Figure 3.10
States With
Model Policies For:

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Tobacco Use	•					•	•	•	•	•		•	•	•				•			•		•	•		
AOD Use	•					•	•	•	•	•		•	•	•				•			•		•	•		
Violence Prevention								•				•		•				•								
HIV-Infected Staff	•		•	•		•	•		•	•		•	•	•	•	•	•		•				•	•	•	
HIV-Infected Students	•			•		•	•	•	•	•		•	•	•	•	•	•		•		•		•	•	•	
HIV Education	•			•		•	•	•	•			•	•	•	•	•	•				•	•	•	•	•	
Sexual Harassment	•			•		•			•			•		•		•						•			•	

What suggestions or recommendations do you have to improve school health policies in your state?

- increase funding.
- revise current policies.
- disseminate policies to all schools.
- encourage administrators to support comprehensive school health.
- develop strategies to keep these issues in the public eye.

Figure 3.11
States Providing Inservice Training Around Policies For:

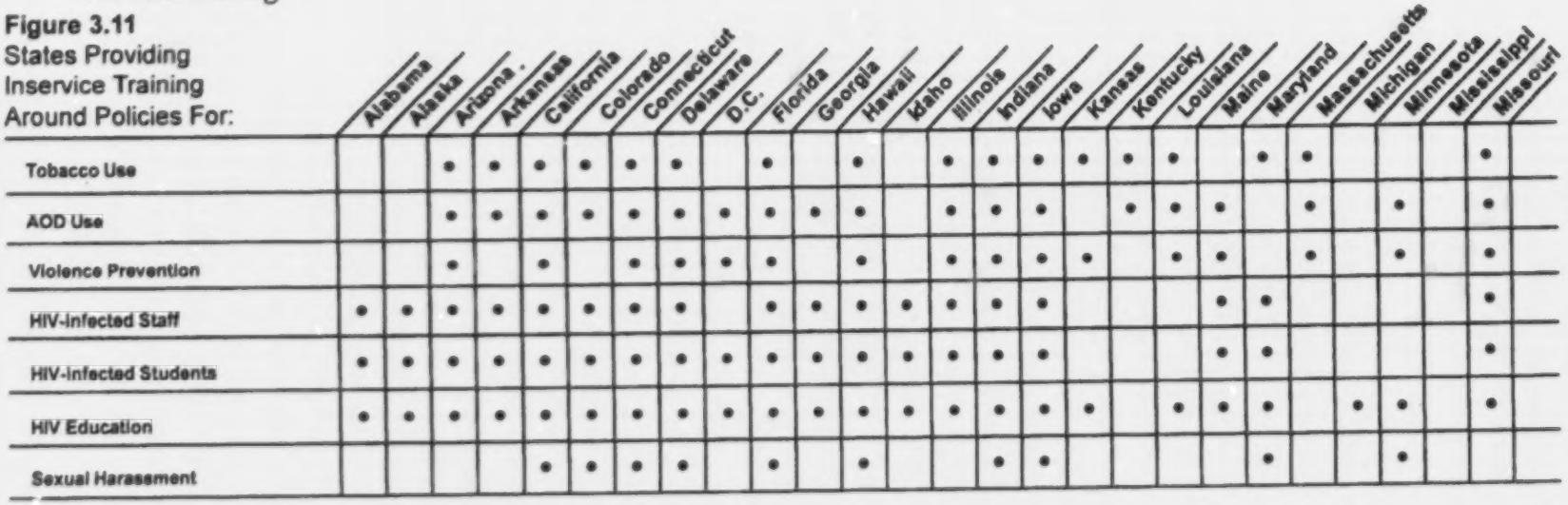

Figure 3.11
States Providing Inservice Training Around Policies For:

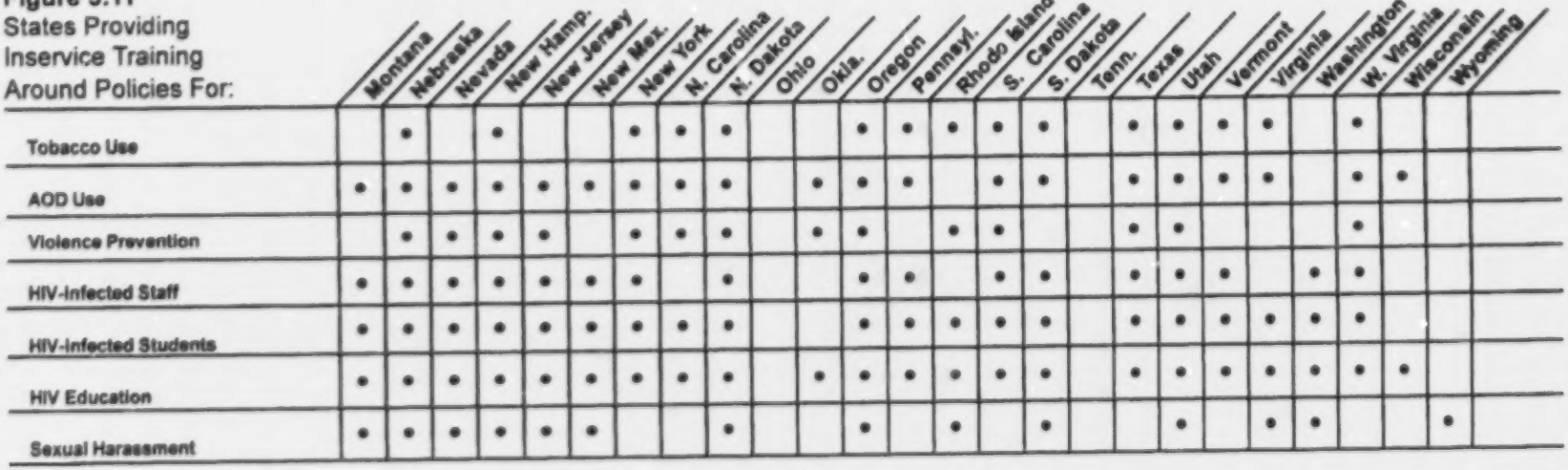

Figure 3.12
States Providing
Policy-Related Materials
About:

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Tobacco Use	•		•	•	•		•	•	•	•		•		•	•	•	•		•	•	•	•			•	•	
AOD Use	•	•	•	•	•		•	•	•	•	•	•		•	•	•	•		•	•	•	•		•	•	•	
Violence Prevention			•		•		•	•		•	•	•		•	•	•	•		•	•				•	•	•	
HIV-Infected Staff	•	•	•	•	•	•	•	•		•		•	•	•	•	•	•			•	•		•		•	•	
HIV-Infected Students	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•			•	•				•	•	
HIV Education	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	
Sexual Harassment					•	•	•	•		•		•			•	•	•				•			•			

Figure 3.12
States Providing
Policy-Related Materials
About:

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Tobacco Use	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•		•		•	•	•	•			
AOD Use	•	•	•	•	•	•	•	•	•	•	•	•	•			•		•		•	•	•	•	•		
Violence Prevention	•	•	•	•	•	•	•	•		•				•		•		•	•		•	•	•			
HIV-Infected Staff	•	•	•	•	•	•	•		•	•		•	•	•	•	•	•	•	•	•		•	•			
HIV-Infected Students	•	•	•	•	•	•	•		•	•		•	•	•	•	•	•	•	•	•	•	•	•			
HIV Education	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Sexual Harassment	•	•	•	•	•	•			•			•		•		•			•		•	•				

- more monitoring to see if policies get implemented.
- provide more technical assistance to local districts.
- better coordination with U.S. Dept. of Education.
- more "culturally sensitive" materials when disseminating policy.
- put "teeth" into policies-link to funding for programs.
- focus on grass roots support rather than top down initiatives.

Physical Elements: The Facility

The World Health Organization[15] defined environmental health as the control of those factors in the physical environment that affect physical development, health, and survival.

Historically, the physical environment for the school has included elements such as the condition of the physical plant (appropriate illumination, ventilation, and heating), safety features such as diagrammed exit patterns in the event of an emergency; playground equipment and surfaces that conform to recommended standards; hygiene factors such as operating and filled soap dispensers in restrooms, sufficiently hot water to sanitize food preparation surfaces and equipment; and appropriate handling of waste materials. More recently, physical security was added to the physical elements of a healthy school environment.

According to the GAO report,[3] school officials reported that while most schools met many key facilities requirements and environmental conditions such as ventilation, heating, indoor air quality, and lighting, many did not meet the recommended standards.

Rates of unsatisfactory environmental conditions were higher in schools in western states or those where more than 40% of students were approved to receive free or reduced-price lunch or where more than 50% of students were minority students. The General Accounting Office estimated the nation's schools needed approximately $112 billion to repair or upgrade their facilities to good overall condition. To achieve a healthful physical school environment, improvements are needed in acoustics, ventilation, heating, indoor air quality, lighting, and physical security.

Acoustics

Unwanted sounds or noise can interfere with oral communication and children's ability to concentrate or study and, if excessive, cause hearing damage. In a learning environment, sound levels should be maintained between 40-60 decibels.[16] Approximately 28% of all schools reported unsatisfactory acoustics.[3]

Ventilation and Heating

Some physical elements investigated and found inadequate are linked to students' ability to learn. Air conditioning is no longer considered a luxury for schools if they use computers or want students to learn in hot weather. Fewer than one-half the respondents reported having air conditioning. Obviously, this problem is more critical for states that experience a number of hot, humid days during the regular school year. Site visits to southern cities, in particular, found schools without air conditioning closed earlier in the hot fall and spring months, decreasing instructional time. Students with asthma often got sick from the heat. Thermal comfort depends on the simultaneous control of humidity, temperature, and air movement. Temperature and humidity factors contribute to human performance and if extreme, may lead to serious health consequences. Unsatisfactory ventilation was reported by 27% of the schools in the GAO study and 19% reported unsatisfactory heating.

Indoor Air Quality

Maintaining appropriate indoor air quality requires monitoring indoor air for biological and chemical agents. Building air is sometimes contaminated with asbestos; hazardous chemicals used in science laboratories, art studios, and industrial arts laboratories; microorganisms; and/or cleaning and

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maintenance supplies.[16] Indoor air pollution, sometimes called "sick building syndrome," has been investigated by a branch of the National Institute of Occupational Safety and Health (NIOSH) since 1911.[16] In the GAO report, unsatisfactory indoor air was reported by 19% of the schools.[3]

Lighting

The quality of light pertains to distribution of luminescence and is not established by quantity of light. Factors such as glare and diffusion affect students' ability to see easily and accurately. Problems commonly observed in schools include glare, shadowing, and bright or dark areas caused by differences in intensity.[16] Unsatisfactory lighting was reported by 16% of the schools.[3]

Physical Security

With the rise of violence in schools and on school grounds receiving national attention, physical security has been added as a physical element of environmental health. Schools act *in loco parentis*, in the place of parents, and while children and youth are in schools, schools are responsible for the safety and well being of their students.[1] Elements such as cameras, metal detectors, locks and lighting can enhance physical security. Twenty-four percent of schools reported unsatisfactory physical security.[3]

Summary

The climate within the school creates the setting that can promote physical, social, and emotional health as well as make achievement possible. Particularly helpful are school policies that consistently support and reinforce health messages delivered in the classroom, in the cafeteria, and on the playing field. Data collected as part of the SHPPS, found that 32 states (63%) required schools to have a tobacco non-use policy. Of these states, 100% addressed student use and 54% (28 states) addressed use by staff. Forty-six states (90%) required schools to have a policy addressing alcohol and other drug use. Thirty states (59%) required schools to have a policy about reducing the spread of HIV while 20 states (39%) required schools to have a policy addressing violence prevention.

A General Accounting Office study[3] of the physical conditions in the nation's schools found numerous unsatisfactory environmental conditions. Unsatisfactory conditions were found for acoustics in 28% of schools, ventilation in 27% of schools, physical security in 24% of schools, heating in 19% of schools, indoor air quality in 19% of schools and lighting in 16% of schools.

Rates of unsatisfactory environmental conditions were higher in schools in western states, or those where more than 40% of the students were approved to receive free or reduced-price lunch or where more than 50% of students were minority students.

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Physical Activity

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There is a relation between physical inactivity and cardiovascular mortality.[1]
- American Heart Association

The physical education component of the school health program makes unique contributions to the total education of students. Physical education helps develop physically educated people who have the skills necessary to perform a variety of physical activities, are physically fit, participate regularly in physical activity, know the implications of and benefits from involvement in physical activities, and value physical activity and its contributions to a healthful lifestyle.[2]

Schools are the primary agencies that provide instruction and practices in physical activity.

In 1987, Congress passed Resolution 97[3] encouraging state and local governments and local education agencies to provide quality daily physical education programs for all children in kindergarten through grade 12. In 1991, *Healthy People 2000,*[4] the public-private initiative that identified the public health goals for the decade, identified numerous physical activity and fitness objectives. These goals include:

- "increase to at least 50% the proportion of children and adolescents in grades one to 12 who participate in daily school physical education."
- "increase to at least 50% the proportion of school physical education class time that students spend being physically active, preferably engaged in lifetime physical activities."

In addition, under goal three, *Student Achievement and Citizenship*, of the National Education Goals is the objective that "All students will have access to physical

education and health education to ensure they are healthy and fit."[5]

In 1995, the National Association for Sport and Physical Education (NASPE) released Physical Education Standards[6] that outline the need for knowledge, skills, attitudes, values, and behaviors of a physically educated person. According to these standards, a physically educated person:

- "demonstrates competency in many movement forms and proficiency in a few movement forms;"
- "applies movement concepts and principles to development of motor skills;"
- "exhibits a physically active lifestyle;"
- "achieves and maintains a health-enhancing level of physical fitness;"
- "demonstrates responsible personal and social behavior in physical activity settings;"
- "demonstrates understanding and respect for differences among people in physical activity settings;" and
- "understands that physical activity provides opportunities for enjoyment, challenge, self-expression, and social interaction."

Although support for physical education and physical activity exists at the federal level, mandates/guidelines for physical education occur at the state level and are implemented at the local level.

This chapter reviews state mandates for physical education using data collected at the state level by the School Health Policies and Programs Study (SHPPS).

State Organization

Despite research demonstrating the benefits of daily physical activity, physical education is not included as an integral part of the total education program in most states. While 48 states (94%) required physical education, and one state (2%) recommended that schools offer physical education classes, only 17 states (33%) reported that the state's requirements for physical education are outcome-based and

Figure 4.1
State Requirements for School Physical Education

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Legal Requirements that Schools Offer Physical Education	•	•		•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	
States with Outcome-Based Physical Education Requirements	•										•	•		•				•					•	•			

Figure 4.1
State Requirements for School Physical Education

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Legal Requirements that Schools Offer Physical Education	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
States with Outcome-Based Physical Education Requirements		•	•			•					•	•	•			•	•		•					•	

A blank space indicates either non-requirements or missing data.

only 13 states (26%) required a course in lifetime physical activity in high school.

Most states (48 states, 94%) required schools to offer physical education. As a legal basis for this requirement, 31 (61%) cited state legislation, 33 (65%) cited state education policy, 1 (2%) cited federal legislation, and 2 (4%) listed other mandates (Figure 4.1).

Thirty-nine states (76%) had a designated professional assigned to direct the physical education program. Only six state directors (12%) coordinated physical education alone. Other responsibilities for the physical education director included:

- health education (20 states, 39%);
- federally funded HIV education (eight states, 16%);
- federally funded Drug-Free Schools Program (six states, 12%);
- driver's education (five states, 10%);
- school health services (three states, 6%); and
- federally funded Nutrition Education and Training (one state, 2%).

Three states (6%), Alabama, North Carolina and Virginia, reported separate state directors for elementary and secondary physical education. Five states (10%) had a separate state director for adapted physical education.

State-level Coordination

The quality and effectiveness of physical education can be enhanced by:

- provision of specific guidelines or a manual detailing programming;
- staff development, programmatic assistance; and

Figure 4.2
State Requirements for Physical Education by Grade Level

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D. C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Instruction Required at Elementary Level	•			•	•					•	•	•	•	•		•	•		•		•	•		•		•	
Instruction Required at Middle School Level	•			•	•				•	•	•	•	•	•		•			•	•	•	•		•		•	
Instruction Required at Secondary level	•	•		•	•				•	•	•	•	•	•		•	•	•	•	•	•			•		•	

Figure 4.2
State Requirements for Physical Education by Grade Level

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Instruction Required at Elementary Level	•	•		•	•		•		•				•	•	•	•	•	•	•	•	•	•	•	•	
Instruction Required at Middle School Level	•			•	•	•	•		•	•				•	•	•	•	•	•	•	•	•	•	•	
Instruction Required at Secondary Level	•	•	•	•	•	•	•	•	•	•	•	•		•	•			•	•	•	•	•	•	•	

A blank space indicates either non-requirements or missing data.

- coordination of programming with other components of the school health program. Forty-two states (82%) have written curriculum guidelines or frameworks for physical education. Thirty-seven states (73%) provided guidelines at each level - elementary, middle/junior high, and/or senior high school. Figure 4.2 contains information on state requirements for physical education instruction by grade level.

Seventeen states (33%) monitored schools' physical education within the past two years; 33 states (65%) reported no monitoring. A few states conducted formal evaluation of physical education at the local level. Evaluations addressed one or more of the following:

- implementation of the physical education curricula, guidelines, or framework (nine states, 18%);
- qualifications for physical education teachers (eight states, 16%);
- status of physical education policies (seven states, 14%);
- quality of staff development training in physical education (six states, 12%);
- quality of goals, objectives, or outcomes in physical education (six states, 12%); and
- other elements (four states, 8%).

In the two years prior to the SHPPS study, state-level programming between the state office for physical education and the state office for health education occurred jointly in 38 states (75%); school food service in 19 states (37%); school health services in 18 states (35%); and school counseling/psychology in 10 states (20%). Eight states (16%) reported no joint state-level activities. Fifteen states (29%) reported joint activities with community agencies or organizations.

The Surgeon General's Report on Physical Activity and Health[7] pointed up the value of developing a process or infrastructure at the state level that promotes joint planning of programs between and among state agencies or departments that address some aspect of health promotion for the school-aged child. Forty-four states (86%) reported state coalitions and organizations for physical education staff. These coalitions and organizations were affiliated with national professional organizations, the majority with the American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD).

Staff Development

To retain certification, 32 states (63%) required physical education teachers to obtain continuing education credits. Both the hours required and the number of years allowed to complete the coursework varied considerably. States required anywhere from two to 180 hours and allowed one to six years to complete the requirement. However, only five states (10%) required that coursework be related directly to physical education. During the two years prior to the SHPPS, 37 states (72%) offered physical education inservice training. The inservice topics included:

- teaching sports, games, or activities (25 states, 49%);
- developing individualized fitness programs (26 states, 51%);
- fitness testing (24 states, 47%);
- increasing students' physical activity in physical education class (26 states, 51%);
- staff wellness (24 states, 47%); and
- other programs (10 states, 20%).

Sixteen states (31%) provided numbers of physical educators who received inservice training. The range was from 35 to 5,000. The total for all states reporting was 20,360.

In the two years prior to the study, 35 states (69%) provided materials to physical education teachers. Topics of these materials included:

- teaching sports, games, or activities (23 states, 45%);
- administration and use of fitness testing (22 states, 43%);
- increasing students' physical activity in physical education class (20 states, 39%);
- staff wellness (20 states, 39%);
- developing individualized fitness programs (18 states, 35%)
- involving families in physical activity (13 states, 26%); and

- increasing students' physical activity outside physical education class (11 states, 22%).

Curricula: Forty-two states (82%) provided guidelines to assist local districts in developing their physical education. Thirty-seven states (73%) provided guidelines specific for elementary, middle/junior high, and senior high levels.

The content of states' written curricula or framework varied. States sharing their written guidelines included the following elements in the curricular guides:

- goals, objectives, or outcomes (38 states, 75%);
- scope and sequence chart (23 states, 45%);
- subject matter content (23 states, 45%);
- resources (16 states, 32%);
- learning activities (14 states, 27%);
- student assessment plans (eight states, 16%);
- curriculum evaluation plans (six states, 12%);
- lesson plans (four states, 8%); and
- other elements (nine states, 18%).

Written goals or outcomes in such guidelines included:

- knowledge about physical activity and benefits of physical activity -- at the elementary level by 37 states (73%), at the middle/junior high level by 40 states (78%) and at the senior high level by 42 states (82%).
- positive attitudes toward physical activity - at the elementary level by 34 states (67%), at the middle/junior high level by 36 states (71%), and at the senior high level by 38 states (75%).
- skills in sports, games and other physical activities - at the elementary level by 36 states (71%), at the middle/junior high level by 39 states (77%), and at the senior high level by 41 states (80%).
- participation in physical activity - at the elementary level by 35 states (69%), at the middle/junior high level by 37 states (73%), and at the senior high level by 39 states (77%); and
- fitness levels - at the elementary level by 31 states (61%), at the middle/junior high level by 35 states (69%), and at the senior high level by 36 states (71%).

Twenty-one states (41%) required schools to use the states' guidelines and 14 states (28%) recommended their use. To monitor compliance with the state's guidelines, 17 states (33%) conducted periodic on-site monitoring, eight states (16%) required that schools submit compliance reports, seven states (14%) required that districts submit compliance reports. Six states (12%) used other means.

Commercial Curricula: Six states (12%) approved or recommended commercial physical education curricula. Six states (12%) required teaching health education topics as part of physical education classes at the elementary level, five states (10%) at the middle/junior high level, and six states (12%) at the senior high level.

Increasing Activity Levels: To achieve the public health benefits from physical education classes, children must actively exercise. In typical physical education classes, less than 30% of class time is spent in moderate to heavy exercise.[8-12]

To increase the amount of physical activity, 25 states (49%) have specific recommendations for school physical education classes. Recommendations include: physical education classes that have continuous exercise lasting 20 or more minutes at least three times per week (16 states, 31%); periodic in-classroom fitness breaks during the day (eight states, 16%); opportunities for intramural and interscholastic sports for all students (11 states, 22%); 30 minutes of physical activity daily from all sources (eight states, 16%); and other recommendations (seven states, 14%).

Academic testing: Thirty-six states (71%) had state-required academic testing

of students. In 30 states (59%) physical education topics were **not** included on the state-required academic tests. Six states (Kentucky, Maine, Michigan, Minnesota, Oregon, Rhode Island) included physical education topics on state-required academic student testing.

Class size: Nine states (18%) specified a maximum number of students per required physical education class, ranging from 30 to 40.

Substitutes for physical education classes: While 10 states (20%) allowed no substitutions for required physical education, eight states (16%) allowed exemptions for participation in interscholastic sports practice or training; six states (12%) for physical disability; five states (10%) for other physical education courses; three states (6%) for other school activities or clubs such as band, chorus, or cheerleading; three states (6%) for other academic subjects; three states (6%) for parental request; and three states (6%) for cognitive disability. Eleven states (22%) cited other reasons. Altogether, 20 states (39%) allow substitutions for required physical education for one or more reasons.

Special needs students: Seven states (14%) required or recommended no physical education classes for special needs students. However, physical education was required or recommended for students with cognitive disabilities in 30 states (59%); with temporary physical limitations in 26 states (51%); and with other conditions in 14 states (28%).

Physical fitness testing: Physical fitness testing measures one or more of the following fitness components: muscular strength and endurance, cardiovascular endurance, flexibility, and body composi-

Figure 4.3
State Requirements for Fitness Testing by Grade Level

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Physical Fitness Testing Required - Elementary Level	•		•	•	•				•			•		•		•		•	•		•			•		•	
Physical Fitness Testing Required - Middle School Level	•		•	•	•				•	•	•	•		•			•	•			•			•		•	
Physical Fitness Testing Required - Secondary Level	•		•	•	•				•	•	•	•		•		•	•	•	•		•			•		•	

Figure 4.3
State Requirements for Fitness Testing by Grade Level

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Physical Fitness Testing Required - Elementary Level	•					•	•	•	•		•	•		•	•		•	•		•	•	•	•			
Physical Fitness Testing Required - Middle School Level	•					•	•	•	•		•	•		•	•		•	•	•	•	•	•	•			
Physical Fitness Testing Required - Secondary Level	•					•	•	•	•		•	•		•	•		•	•	•	•	•	•	•			

A blank space indicates either non-requirements or missing data.

tion. Testing results can be used in developing individualized prescriptions for improving students' physical fitness.

In the School Health Policies and Programs Study, 17 states (33%) neither required nor recommended fitness testing in physical education. Twelve states (24%) required testing, and 22 states (43%) recommend testing. Of those states requiring or recommending fitness testing, 28 states (55%) did so at the elementary level, 32 states (63%) at the middle/junior high level, and 32 states (63%) at the senior high level. (Figure 4.3)

The specific fitness test batteries required or recommended varied, and some states recommended more than one. Ten states did not specify a specific fitness test battery. Three states (6%), Maryland, New York, and Rhode Island, used a fitness test developed by the state; 14 states (28%) suggested the AAHPERD Physical Best; 14 states (28%) the President's Council on Physical Fitness & Sports Presidential Challenge, 10 states (20%) the AAHPERD Health Related Fitness Test; nine states (18%) the Fitnessgram sponsored by the Institute for Aerobics Research/Prudential; seven states (14%) the AAHPERD Youth Fitness Test; and one state (2%) the Amateur Athletic Union fitness test.

School athletics. Thirty-one states (61%) reported that a governing body associated with the state education agency regulated interscholastic athletics in the state. All but three states (94%), Louisiana, New Mexico, and Tennessee, have a state-level coalition or association for interscholastic sport coaches. In 37 states (73%) the coalitions or associations are affiliated with national professional organizations.

The National Association for Sport and Physical Education, using a consensus building model with other sports or medical associations, published national standards for athletic coaches in 1995. The standards identify the skills and knowledge that all coaches should possess to ensure the enjoyment, safety, and positive skill development of America's youth.[12] The 37 standards or competencies cover eight domains: prevention care and management of injuries; risk management; growth, development and learning; training, conditioning, and nutrition; social/psychological aspects of coaching; skills, tactics and strategies; teaching and administration; and professional preparation and development.[12]

The School Health Policies and Programs Study found that 14 states (28%) had no state requirements for qualification as a coach; 23 states (45%) required state certification as a teacher; 16 states (32%) required completion of a state-required coaching inservice training; two states required prior experience as a coach in the sport; and eight (16%) states had other qualification requirements. Of the topics coaches were required to complete during inservice training, 20 states (39%) required injury prevention and first aid; 12 (24%) required scientific foundations of sports performance, 11 states (22%) required philosophy of youth sport programming; 11 states (22%) required coaching techniques; and six states(12%) had other requirements. Twenty-eight states (55%) had no state requirements for inservice training of coaches.

Policy Guidelines

States varied in their written policies to guide coaches and student athletes on risk-behaviors such as use of tobacco, steroids, alcohol, or other drugs or unhealthy weight loss practices.

Of the 16 states (32%) that had written policies in place addressing the use of tobacco products by student athletes, policies in 13 states (26%) included coaches. Twenty-three states (46%) had a written policy addressing the use of steroids by athletes, 22 states (43%) had a written policy addressing the use of alcohol and other drugs by athletes, and 12 states (24%) had a written policy addressing unhealthy weight loss practices by athletes.

Personnel

Ideally, personnel teaching physical education at either the elementary, middle school, or high school level should have specific preparation and certification in physical education. Professional preparation standards, however, range from 18 to 54 hours of credit, and certification can require as few as nine hours of physical education instruction.[13]

The Shape of the Nation Report compiled by the National Association of Sport and Physical Education (NASPE) indicated that a high proportion of physical education classes are taught by specialists, but as many as one-third of these specialists do not hold valid certification in physical education.[13] Figure 4.4 shows the states that required or recommended teacher certification in physical education. While three-fourths of the states required a K-12 certification, more than one-half of the states also required specific certification for various grade levels, such as elementary, middle, or secondary school.

Although health education was formally recognized as a specialty area in the 1920s, physical education and health education continued to be linked both in professional practice and preservice training. Professional preparation programs for the two are often housed in the same academic division.[14] In some states physical education certification was available as either a separate certificate or in conjunction with health education. Only four states (8%) did not

Figure 4.4
State Requirements Regarding Physical Education Certification for Instructors by Grade Level

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Separate Certificate for Elementary Level	•	•	•	•		•		•								•	•	•			•					•	
Separate Certificate for Middle School Level		•		•		•						•	•	•	•		•	•	•						•	•	
Separate Certificate for Secondary Level	•	•	•	•		•		•				•	•	•	•	•	•	•	•						•	•	
Continuing Education Hours Required to Maintain Certification		•				•	•		•	•	•		•		•	•	•	•		•			•	•	•	•	

Figure 4.4
State Requirements Regarding Physical Education Certification for Instructors by Grade Level

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Separate Certificate for Elementary Level		•			•						•					•			•			•			
Separate Certificate for Middle School Level		•									•							•	•		•	•			
Separate Certificate for Secondary Level		•									•							•	•		•	•			
Continuing Education Hours Required to Maintain Certification	•	•	•				•		•	•	•	•		•	•			•	•	•	•	•	•	•	

A blank space indicates either non-requirements or missing data.

offer a separate teaching certificate in physical education at some level.

Fifteen states (29%) offered a combined teacher certification or endorsement in physical education and health education at the K-12 level, seven states at the elementary level (14%), 11 states at middle/junior high level (22%), and 11 states at the senior high level (22%). Twenty-nine states (57%) did not offer a combined teacher certification or endorsement in physical education and health education.

Thirty-seven states (37%) offered a separate teaching certificate in physical education for K-12; 16 states (31%) at the elementary level, 18 states (35%) at the middle/junior high level, and 22 states (43%) at the senior high level.

Qualifications for certification as a physical education teacher varied. Thirty-four states (67%) required a baccalaureate degree in physical education or a related major, plus a specified number of education credits; 30 states (59%) allowed a baccalaureate degree in education with a specified number of credits in physical education. Fifteen states (29%) required passing a state competency exam. Only eight states (16%) required that elementary physical education teachers have a separate physical education certificate, while 45 (88%) required separate physical education certification at the secondary level.

Improving Physical Education

The School Health Policies and Programs Study asked state directors for physical education four open-ended questions. The most frequent responses were:

What would you like to do in physical education in your state that you have not been able to do?

- provide certified physical education specialists at the elementary level.
- mandate daily quality physical education.
- have a K-12 curriculum guide.
- include physical education as a part of the state testing program.
- establish a network of curriculum specialists.
- revise state regulations including assessment.
- eliminate the academic and athletic exemptions.
- cap the number of students that can be in elementary physical education classes.

What has prevented you from doing the things you just described?

- funding.
- no consultant at the state department.
- lack of commitment from administration.
- local control, legislative action not a high priority, lack of time and resources, and the current political climate.

What has been the most helpful to you in improving physical education in your state?

- coalition building/networking/and collaboration with state health and physical education AAHPERD associations.
- adoption and publication of the new physical education framework.
- attending conferences that focus on physical education, staff development, better public relations, administrative support, and embracing the comprehensive school health model.

What suggestions or recommendations do you have to improve physical education in your state?

- revise core-curriculum and include physical education in school reform and Goals 2000, including increased requirements for physical education.
- provide more funding for teacher inservice and policy updates.
- improve professional preparation of new teachers.
- continue to work within the school health program model.

Summary

Most states (94%) required physical education. Joint programming between the state office of physical education and other component areas of the school health program occurred most often with health education (75%), school food service (37%), and school health services (35%). Forty-four states (86%) had state coalitions and organizations to promote physical education and physical activity. While 42 states (82%) provided guidelines to assist local districts with physical education curriculum development, only 21 states required compliance with the state's guidelines. Twelve states (24%) required fitness testing, while 22 states (43%) recommended this practice. Policies for school-sponsored athletics that address steroid use were adopted in 23 states (46%), alcohol use in 22 states (43%), tobacco use in 16 states (32%), and weight loss practices in 12 states (24%).

Thirty-seven states (73%) had a separate teaching certificate in physical education. Fifteen states (29%) offered a combined health and physical education K-12 certificate. Thirty-four states (67%) required a baccalaureate degree in physical education or a related major in order to qualify for certification.

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School Food & Nutrition Services

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Children are constantly developing attitudes about food and nutrition through what they see and what they experience. To avoid sending mixed messages about nutrition, schools must reinforce nutrition education programs with a school atmosphere that is conducive to eating healthfully...This means that nutrition education in the classroom should be coupled with a school cafeteria that serves as a laboratory where children can experiment with their newly acquired information.[1]
-- American Cancer Society

The importance of good nutrition to the health of children is well-established.[2] Furthermore, hungry children have difficulty in learning.[3-6] Providing nutritious meals and nutrition education at school can lead to students establishing appropriate nutrition habits that can enhance their future health.[7] A diet high in fat, saturated fat, and cholesterol and low in fruits and vegetables increases the risk for heart disease, cancer, and stroke as children mature and become adults.[8-10]

Over 50 years ago, the U.S. adopted the National School Lunch Act (NSLA) with the purpose of "safeguarding the health and well-being of the nation's children."[11] The goals of school food service is to provide nutritionally adequate meals at an accessible price and to promote nutrition education. The scope of the lunch program has expanded over the years to include the provision of free and reduced-priced lunches and breakfasts for children and families in need. Many children who benefit from school meals when school is in session now also obtain meals during summer vacations as school nutrition programs have extended to summer programs.

By the early 1990s, schools in the U.S. provided 27 million lunches and three million breakfasts daily.[12] National School Lunch Program lunches provide one-third to one-half of the recommended daily allowance (RDA) of nutrients for students and breakfast menus provided one-fourth to one-third of RDAs averaged over a week.[12]

In 1977, Congress established the Nutrition Education and Training (NET) Program to enhance nutrition education in schools. NET's goals are to "teach children, through a positive lunchroom experience and appropriate classroom reinforcement, the value of a nutritionally balanced diet, and to develop curricula and materials to train teachers and food service personnel to carry out this task."[13] In 1989, Public Law 101-147[14] established the National School Food Service Management Institute (NSFSMI) to provide research, training, and technical assistance that improves the general operation and quality of school food service programs nationwide.

The U.S. Dept. of Agriculture (USDA) in collaboration with the U.S. Dept. of Health and Human Services (USDHHS) establishes the Dietary Guidelines for Americans.[15,16] The Guidelines recommended that Americans:

- eat a variety of foods;
- maintain a healthy weight;
- choose a diet low in fat, saturated fat, and cholesterol;
- choose a diet with plenty of vegetables, fruit, and grain products; and
- use sugars, salt, and sodium only in moderation.

These Guidelines provide a basis for many school food service menus.

The American School Food Service Association and the National School Food Service Management Institute established the Nutrition Integrity Standards that specify foods available in schools that are consistent with the guidelines and provide the recommended daily allowance.[17]

Figure 5.1
State Requirements for School Food Services

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
To Offer Meals at School					•		•		•	•	•		•		•		•		•	•		•			•	
To Employ District Food Service Director							•			•								•		•				•		
Certification of District-level Food Service Director					•		•			•								•				•	•	•		
Certification of School-level Food Service Director				•	•				•									•				•	•	•		

Figure 5.1
State Requirements for School Food Services

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
To Offer Meals at School				•	•		•	•		•				•	•		•						•			
To Employ District Food Service Director	•							•							•											
Certification of District-level Food Service Director		•						•								•	•									
Certification of School-level Food Service Director		•				•										•										

In June 1994, the Food and Nutrition Service Division of the U.S. Dept. of Agriculture launched *Healthy Kids: Nutrition Objectives for School Meals*, which acknowledged its "national health responsibility to ensure that school meals make a positive contribution to the present and future health of our children."[18]

This initiative recognized that despite the established link between nutrition and health, federal requirements for school meals had changed littleover the past half century.

Healthy Kids[18] proposed providing school meals that reflect the nutrition recommendations of the Dietary Guidelines for Americans through strategies such as updated nutrition standards and nutrient-based menu planning (NuMenus) replacing current rigid meal patterns, a nutrition education campaign, more effective administrative procedures, more nutrient appropriate commodities, and collaboration with other agencies to improve school meals.[18]

Methodology

This chapter reviews state mandates for school's nutrition services based on data collected as part of the School Health Policies and Programs Study (SHPPS). For more details on the study, see Chapter 1: Introduction.

State Organization

Twenty-two states (43%) required that schools offer meals during the school day (Figure 5.1).

All states and the District of Columbia (100%) had a person responsible for directing school nutrition services. In seven states (14%), the director's only responsibility was for school nutrition services.

In many states the state nutrition services director was responsible for other nutrition programs including:

- coordinating the Women, Infants, and Children (WIC) nutrition program (44 states, 86%);
- coordinating the Summer Food Service program (33 states, 65%);
- coordinating the Child Care/Adult Care program (33 states, 65%);
- coordinating the Nutrition and Education Training (NET) program (29 states, 57%);
- coordinating the USDA donated food program (24 states, 47%); and
- coordinating other programs (15 states, 29%).

Traditionally, local education agencies employed food service personnel to manage the programs. However, 46 states (90%) permited food service management companies and 28 states (55%) permited fast food restaurants to offer foods as part of school breakfast or lunch programs.

State Coordination

The quality and effectiveness of a state's support for school nutrition services can benefit from collaboration with other state agencies that promote other components of the school health program.

Joint state-level activities occurred between state school nutrition services staff and those responsible for:

- health education in 34 states (67%);
- school health services in 22 states (43%);
- physical education in 13 states (25%);
- school counseling/psychology in one state (2%); and
- community agencies and organizations in 24 states (47%).

In addition, 48 states (94%) had state-level coalitions or associations for school food service personnel, and in 46 states (96%) the coalition or association was affiliated with a national professional organization, most often the American School Food Service Association. Other national professional organizations with state-level affiliates included the Nutrition Coalition, Coalition Against Hunger, National Parents and Teachers Association, Alliance for Home Economics, Association of School Business Officials, American Dietetic Association, American Cancer Society, and American Heart Association.

Programming

Meal Planning and Participation

Healthy People 2000, the nation's agenda for health promotion and disease prevention, in Objective 2.17 calls for increasing to at least 90% the proportion of school lunch and breakfast services and child care food services with menus that are consistent with the Dietary Guidelines for Americans."[19] Schools can implement the Dietary Guidelines through menu modifications that reduce the fat content of meals, increase the use of whole grain products, and reduce the use of sugars, salt, and foods high in sodium. A national sample of school meals evaluated in the School Nutrition and Dietary Assessment (SNDA)[12] found that school lunches averaged 39% of calories from fat, exceeding the 30% recommended by the guidelines. The U.S. Dept. of Agriculture's *Final Regulation: School Meals Initiative for Healthy Children*[20] requires schools participating in the National School Lunch Program and the School Breakfast Program to implement the Dietary Guidelines for Americans by the 1996/97 school year unless granted a delay by the state agency.

In addition, the nutrition standards established by the *Final Regulation: School Meals Initiative for Healthy Children* recommended that school lunches provide one-third of the Recommended Daily

Figure 5.2
State Activities that Support the Dietary Guidelines for Americans

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Recommend Following Dietary Guidelines for Americans	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Periodically Monitor DGA Compliance		•						•	•			•	•	•		•								•			
Provide Staff Development about DGAs in School Meals	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•
Offer Materials about Applying DGAs in School Meals	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•

Figure 5.2
State Activities that Support the Dietary Guidelines for Americans

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Recommend Following Dietary Guidelines for Americans	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Periodically Monitor DGA Compliance	•		•		•	•		•	•		•	•			•	•	•		•		•		•		•	
Provide Staff Development about DGAs in School Meals	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Offer Materials about Applying DGAs in School Meals	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	

Allowances (RDA) and that school breakfasts provide one-fourth the RDA for protein, vitamins A and C, iron, calcium, and calories; varying minimum levels of nutrients and calories by age groups; and measuring compliance over a school week.

According to the School Health Policies and Programs Study (SHPPS) data, only one state (2%) required districts or schools to plan and prepare menus consistent with the Dietary Guidelines for Americans (DGAs) (Figure 5.2). However, states supported implementation of guidelines by:

- recommending that schools follow the DGAs in meal preparation (49 states, 96%);
- performing periodic on-site monitoring of compliance with the DGAs (23 states, 45%);
- performing other activities to monitor compliance with the DGAs (four states, 8%);
- requiring schools to submit periodic reports documenting compliance with the DGAs (one state, 2%); and
- requiring districts to submit periodic reports documenting compliance (one state, 2%).

Only one state (2%) neither required, nor recommended, implementation of the Dietary Guidelines for Americans.

Competitive Foods

In addition to assuring that foods meet the Dietary Guidelines for Americans, schools need to help students practice good nutrition.

Currently, U.S. Dept. of Agriculture regulations restrict the sale of competitive foods in the food service area during meal times.[21] Organizations including the American School Health Association, American Medical Association, National Congress of Parents and Teachers, American Dental Association, and American Dietetic Association have urged local school boards to restrict the sale of foods sold anywhere in school in competition with school meals.[22]

Oregon recommends that supplemental or competitive food sold in schools should meet at least four criteria: 1) contain sufficient nutrient density, 2) not compromise children's dental health, 3) not contain excessive sodium, and 4) limit the use of food additives to restoring nutrients lost or extending shelf life.[23]

The SHPPS data indicated that numerous states have policies addressing competitive foods (Figure 5.3). These included policies on school vending machines (13 states, 26%) and the sale of foods that are not part of the school meal program (23 states, 45%).

One state (2%) had a policy about permitting students to leave school during lunch.

Nutrition Education

In addition to providing nutritious and appealing meals for all students, school nutrition services offer nutrition intervention, referrals, and follow-up services to school children; coordinate nutrition education in the cafeteria with that in the classroom; and maintain links with nutrition-related community services.[22] Objective 2.19 of Healthy People 2000[19] calls for increasing to at least 75% the proportion of the nation's schools that provide nutrition education from preschool through 12th grade, preferably as part of quality school health education. Nutrition education in the classroom and reinforced in the cafeteria with opportunities for nutritious meal choices can help students learn lifelong habits that promote health.[24,25] To facilitate coordination of nutrition education between the cafeteria and classroom, 50 state education agencies (98%) helped schools or districts in one or more of these ways:

- providing ideas for special nutrition-related events (45 states, 90%);
- providing strategies for involving food service staff in classrooms (38 states, 76%);
- providing strategies for using the cafeteria as a nutrition learning laboratory (36 states, 72%);
- arranging joint in-service training on nutrition education for school food service staff and classroom teachers (20 states, 40%); and
- arranging regular meetings on nutrition education for school food service staff and classroom teachers (15 states, 30%) (Figure 5.4).

Personnel

A food service director is "one who plans, organizes, directs, and administers a school food service and nutrition education program for a school district or multiple units, including a state agency."[26] Eight states (16%) required districts to employ food service directors (Figure 5.1). Two states (4%) required schools to employ food service directors.

The American School Food Service Association, whose mission is to support implementation of nutritionally sound, financially accountable, and acceptable child nutrition education programs, has outlined food service director competencies:[26] training and skills in program planning, resource allocation, financial management, facilities planning, organizing and implementing programs for nutrition education, and establishing marketing and communications programs.

Since 1973 the American School Food Service Association has granted voluntary certification to more than 28,000 food service personnel.[26] No mandatory national certification standards exist for food service directors.

The SHPPS data showed that 11 states (22%) required certification for district-level food service directors. Among these states, five required a baccalaureate degree in nutrition or a related field for state certification, and four required completion of a state food service training program. Two states each required a minimum of a high school diploma or GED, an associate's degree in nutrition or a related field, a master's degree in nutrition or a related field, or ASFSA certification. Five of the states that offer certification required such certification for employment as a district-level food service director (Figure 5.1).

Thirteen states (26%) offer certification for school-level food service directors. Among these states, six required completion of a state school food service training program, six required a high school diploma

Figure 5.3
States with Policies on Competitive Foods in Schools

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Policies on Vending Machines					•				•			•						•	•	•		•			•		
Policies on Competitive Foods					•	•	•			•	•	•		•				•	•	•	•	•			•		

Figure 5.3
States with Policies on Competitive Foods in Schools

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Policies on Vending Machines		•			•							•							•			•			
Policies on Competitive Foods		•			•		•	•		•		•		•					•	•		•			

or GED, a baccalaureate degree in nutrition or a related field, and one requires an associate's degree in nutrition or related field.

To retain certification, seven states (14%) require district and school food service directors to obtain continuing education. The seven states require an average of 38 continuing education hours over one to five years. The range of required hours is 15-100. Seven states (14%) also required food service directors at the school level to obtain continuing education. They need an average of 26 continuing education hours over three to six years. The range of hours required is 6-60.

Staff Development

Successful operation of school nutrition services depends on how effectively the staff functions. To provide acceptable, nutritious, and economical meals, staff need training in the planning and preparation of meals that meet the Dietary Guidelines for Americans. To promote nutrition education, staff need training on how to use the cafeteria as a learning laboratory. Assistance for state directors in providing programs at the local level is available from the National School Food Service Management Institute which has a library of resources for training materials for school nutrition programs.[27-32]

In the two years prior to SHHPS, all state education agencies offered staff development training that addressed one or more of the following:

- incorporating the Dietary Guidelines for Americans in school meals (50 states, 98%);
- making meals more appealing to students (48 states, 94%);
- promoting nutrition and school meals (48 states, 94%);
- preparing food in a sanitary manner (45 states, 88%);
- coordinating food service with nutrition education (43 states, 84%);
- evaluating nutrient content of meals (39 states, 76%); and
- using the cafeteria as a learning laboratory (37 states, 73%).

The 43 states (84%) that provided staff development data estimated that during the two years prior to the study more than 153,000 school food service personnel attended these trainings.

During the years prior to the SHPPS, state education agencies provided materials for enhancing the knowledge and skills of school food service staff about one or more of the following:

- implementing Dietary Guidelines for Americans in school meals (50 states, 98%);
- promoting nutrition and school meals (47 states, 92%);
- making meals more appealing to students (42 states, 82%);
- preparing food in a sanitary manner (39 states, 77%);
- coordinating the food service program with nutrition education (38 states, 75%);
- evaluating nutrient content of meals (35 states, 69%); and
- using the cafeteria as a learning laboratory (33 states, 65%).

Improving School Nutrition Services

The School Health Programs and Policies Study asked a series of open-ended questions about how to improve schools' nutrition services. Frequent responses of the state-level staff person responsible for school nutrition services follow each question.

What would you like to do in school food service in your state that you have not been able to do?

- Conduct more workshops and training;
- Establish certification requirements;
- Assess implementation of the Dietary Guidelines for Americans; and
- Increase breakfast participation;
- Conduct joint activities with teachers to integrate nutrition in the curriculum; and
- Reduce competitive foods (develop policy, eliminate vending machines, prohibit junk food as fund raisers).

What has prevented you from doing the things you just described?

- Lack of funds and resources;
- Lack of time;
- Shortage of staff;
- Lack of interest or acceptance of the value of School Food Programs by other professionals in the school; and
- Too many regulatory requirements (paperwork, monitoring reviews) to have time to provide technical assistance.

What has been most helpful to you in improving school food service in your state?

- Certification standards;
- Establishment of a coalition that promotes the school food service program;
- The NET program and personnel;
- Support from school board, superintendent, principal, and others; and
- Establishment of a state-wide training network (five states, 10%).

Figure 5.4
State Activities that Support Coordination of Nutrition Education

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	D.C.	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Strategies Promoting Food Service Staff In Classroom	•	•	•	•	•	•			•		•	•	•			•	•	•	•	•	•	•		•	•	•	
Strategies Promoting Use of Cafeteria as a Learning Lab	•	•	•	•	•	•	•		•		•	•	•	•			•	•	•	•		•		•	•	•	
Strategies for Nutrition-Related Events	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	
Joint Inservice for Food Service Staff & Teachers	•		•	•	•								•	•				•				•		•	•		
Regular Meetings on Nutrition Ed. for Food Service Staff & Teachers				•	•			•														•					

Figure 5.4
State Activities that Support Coordination of Nutrition Education

	Montana	Nebraska	Nevada	New Hamp.	New Jersey	New Mex.	New York	N. Carolina	N. Dakota	Ohio	Okla.	Oregon	Pennsyl.	Rhode Island	S. Carolina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Washington	W. Virginia	Wisconsin	Wyoming
Strategies Promoting Food Service Staff In Classroom	•		•		•		•	•	•		•	•	•	•	•	•	•	•	•			•	•	•		
Strategies Promoting Use of Cafeteria as a Learning Lab	•	•	•		•		•	•	•			•	•		•		•	•	•			•	•	•		
Strategies for Nutrition-Related Events	•	•	•	•	•		•	•	•	•		•	•	•	•	•		•	•			•	•	•	•	
Joint Inservice for Food Service Staff & Teachers	•			•	•		•								•		•	•	•			•	•			
Regular Meetings on Nutrition Ed. for Food Service Staff & Teachers	•		•		•		•		•	•	•		•		•			•					•			

What suggestions or recommendations do you have to improve food service in your state?

- Conduct a marketing campaign about the value of a school food service program;
- Establish certification or minimum requirement standards for personnel;
- Increase the number of staff development programs;
- Establish universal feeding for all children;
- Monitor implementation of the Dietary Guidelines for Americans; and
- Secure an increased commitment from public and school staff for school food service programs.

Summary

According to the data states provided to the SHPPS, 42 states did not require school districts or schools to employ a food service director, but all 51 states had a person directing or coordinating school nutrition services at the state level. In many states, nutrition services directors helped coordinate other programs such as NET, WIC, summer feeding, food distribution, and child/adult care programs.

Many states allowed food service management companies (46 states) or fast food restaurants (28 states) to offer food as part of school meals. In the two years prior to the SHPPS, more than one-half the states (34 states) had joint activities between school food service and health education, while 38 states provided strategies for involving food service staff in classrooms. Implementation of the Dietary Guidelines for Americans was mandatory in only one state. Forty-nine states, however, recommend implementing the guidelines in school meal preparation. In the two years prior to SHPPS, 50 states offered training for their food service staff in implementing the guidelines in school nutrition programs and 23 states periodically monitored school meals for guideline compliance. Thirteen states had policies on vending machines and 23 states had policies on the sale of competitive foods. While most states provide both training and materials for food service personnel at the local level, most states (42) did not require districts or schools to employ a food service director with the prerequisite skills to manage the food service program.

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